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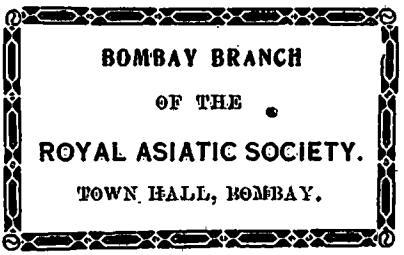

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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS, AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE ACADEMIES OF STOCKHOLM, UPSAL, TURIN, LISBON, LUND, BERLIN, PHILADELPHIA, AND THE NAT. HIST. SOCIETY OF PARIS;

PRESIDENT OF THE LINNÆAN SOCIETY.

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THE FIGURES BY

JAMES SOWERBY, F.L.S.

—" VIRESQUE ACQUIRIT EUNDO." *Virg.*

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VOL. XI.

LONDON:

PRINTED BY RICHARD TAYLOR, RED LION COURT, FLEET STREET;

And sold by the Proprietor, J. SOWERBY, at No. 2, Mead Place, Lambeth; LONGMAN and Co.; and SHERWOOD, Paternoster Row; and by all Booksellers in Town and Country.

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Viola lutea.

VIOLA lutea.

Yellow Mountain Pansy.

PENTANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-leaved, lengthened out at the base. *Pet.* 5, irregular; the lowermost spurred behind. *Antheræ* slightly cohering. *Caps.* superior, of one cell, with three valves.

SPEC. CHAR. Stem triangular, unbranched. Leaves ovato-oblong, crenate, ciliated. Stipulæ lobed, palmate.

SYN. Viola lutea. *Sm. Fl. Brit.* 248. *Huds. ed.* 1. 331. *With.* 263. *Hull.* 129.

V. grandiflora. *Huds.* 380. *Lightf.* 508.

V. montana lutea grandiflora nostras: *Raii Syn.* 249.

THIS Violet, which a superficial botanist might pass by as one of the many varieties of the Common Heart's-ease, differs widely from that species in its place of growth, in being perennial, in having a simple stem, and in the shape of its stipulæ, which are deeply five-cleft and palmate, not pinnatifid nor lyrate, though their middle lobe is larger than the rest.

V. lutea is found only in grassy mountainous pastures, flowering from May to September. It is plentiful in the north of England, Scotland, and the wildest parts of South Wales. The root is small and slender. Stem unbranched, weak and prostrate at the base, then erect, rising to the height of 3 or 4 inches, leafy, triangular, very slightly downy, bearing one or two flowers on very long stalks from the bosoms of the upper leaves. Leaves alternate, on footstalks, more or less ovate, crenate, finely fringed, accompanied by a pair of large, deeply 5-cleft, fringed stipulæ, whose outer lobes are deepest and narrowest. Calyx toothed at the base. Petals either all yellow, with dark-purple radiating veins, or the 2 uppermost are of a blue purple, the rest yellow with a blue tinge; very often the whole are purple. The antheræ are slightly attached to each other. The singular form of the style and stigma is expressed in our figure greatly magnified; the purple line under the stigma is remarkable.

CALLITRICHE aquatica.

Water Star-wort.

MONANDRIA Digynia.

GEN. CHAR. *Cal.* none. *Pet.* 2. *Stigmas* acute. *Seeds* 4, compressed, naked, with a winged margin on one side. Some monoecious flowers.

SPEC. CHAR. .....

SYN. Callitriche aquatica. *Huds.* 439. *Sibth.* 2. *Sm: Fl. Brit.* 8. *Hull:* 2.

C. verna. *Linn. Sp. Pl.* 6. *With.* 5. *Relh.* 2: *Abbot.* 1.

Stellaria. *Raii Syn.* 289:

β. S. minor et repens. *Raii Syn.* 289:

Alsine palustris serpyllifolia. *Ger. em.* 614:

γ. Callitriche autumnalis: *Linn. Sp. Pl.* 6. *With:* 6. *Relh.* 2. *Abbot.* 2.

Stellaria aquatica, foliis longis tenuissimis. *Raii Syn.* 290.

FREQUENT and abundant in ditches, lakes, and standing pools, flowering from April to October. It is generally supposed to be annual, floating by means of its thick-set broad upper leaves till the impregnation is accomplished; then each flower sinks, by the elongation of the top of the stem, where new ones are produced, and finally the whole herb subsides to the bottom, takes root there, ripens and sows its seeds. The young plants soon rise to the surface, and appear to be nourished from the water by slender simple roots, from each joint of the slender branching stem, which do not reach the ground till the plant subsides as abovementioned. The earlier leaves are opposite, spatulate, entire, three-nerved; but those produced in autumn, after the herb sinks, are linear, single-nerved, and emarginate, which occasioned the distinction of this one species into two. Flowers axillary, solitary, sessile, small, whitish, with one very long stamen and a bivalve anthera, and a four-lobed germen, with 2 capillary styles. Seeds 4, naked, sharply keeled. Some flowers often want the stamen, others the germen and styles; which led Mr. Hudson to remove this genus to the *Polygamia*, a class which if thus rigidly attended to would swallow up half the rest.

723.
1328.

Corylus Avellana.

CORYLUS Avellana.

Hasel-nut.

MONOECIA Polyandria.

GEN. CHAR. Male, *Cal.* the scale of a catkin, three-cleft. *Cor.* none. *Stam.* 8.

Female, *Cal.* cloven, torn. *Cor.* none. *Styles* 2. *Nut* ovate, smooth, of 1 cell, clothed with the swelling coriaceous calyx.

SPEC. CHAR. Stipulæ ovate, obtuse. Leaves roundish, heart-shaped, pointed. Young branches hairy.

SYN. Corylus Avellana. *Linn. Sp. Pl.* 1417. *Huds.* 423. *With.* 378. *Hull.* 213. *Relh.* 364. *Sibth.* 127. *Abbot.* 211.

C. sylvestris. *Raii Syn.* 439.

THE common Hasel-nut, so frequent in hedges and copses, is one of the earliest of our spring blossoms. Its male catkins, which had budded in the preceding summer, arrive at full perfection about the middle of March, or rather later. In an April morning they are often seen spangled with dew-drops, and quivering to every breeze, till at length the sun disperses the moisture, shrinks the scales, bursts the antheræ, and the pollen is plentifully scattered. At the same time the beautiful crimson styles may be observed, 12 or 14 in number, peeping from their own proper buds in a neighbouring part of the branches. About September the nuts are ripe. They are distinguished from the garden Filberd, which may possibly be a distinct species, by the calyx being much shorter than the ripe nut.

The young branches are clothed with reddish hairs. Leaves produced after the flowers, downy, heart-shaped at the base, doubly serrated, veiny. The catkins fall off entire. The stamina are about 8 to every scale.

Rumex acutus.

RUMEX acutus.

Sharp Dock.

HEXANDRIA Trigynia.

GEN. CHAR. *Cal.* 3-leaved. *Petals* 3, closed. *Seed* 1, superior, naked, triangular. *Stigmas* many-cleft.

SPEC. CHAR. Valves oblong, obscurely toothed, each bearing a prominent grain. Leaves cordato-oblong, pointed. Clusters leafy.

SYN. Rumex acutus. *Linn. Sp. Pl.* 478. *Sm. Fl. Brit.* 391. *Huds.* 155. *Relh.* 147.
R. paludosus. *With.* 354, by the descript. *Hull.* 77.
Lapathum acutum. *Raii. Syn.* 142.
β. L. acutum minimum. *Dill. in Raii Syn.* 141.

THIS *Rumex* has been enveloped in such confusion, I should hardly venture, without the most certain documents to undertake its illustration. It is the *acutus* of the Linnæan herbarium, and agrees with the character in *Sp. Pl.* From Ray's excellent though short description there can be no doubt of its being his *Lapathum acutum.* It does not agree with Mr. Hudson's description of his *paludosus,* (a plant I do not pretend to know,) but I rather believe he confounded ours with the common *Lap. viride* of Dillenius under his *R. acutus,* and Mr. Curtis seems to have done the same. His figure agrees with our plant, but his letter-press rather with *L. viride,* which is truly a variety of *R. sanguineus,* only one of its valves having a prominent grain. I have therefore perhaps too incautiously quoted the figure of Curtis for *R. sanguineus* β in the *Fl. Brit.*

Our genuine *R. acutus* seems not uncommon in marshy meadows. This specimen grew at Surlingham, below Norwich, flowering in July. Root perennial. Stem angular, furrowed, smooth, rather zigzag. Leaves narrow. Branches elongated, bearing numerous drooping flowers, almost always accompanied by small stalked leaves. Seed small, enclosed in valves, formed of the petals, which are oblong, entire, rarely toothed at the base, each constantly bearing a large red prominent grain. The flowers are male, female, and hermaphrodite, some of the males having, according to Mr. Sowerby, 12 stamina.

Rumex maritimus

RUMEX maritimus.
Golden Dock.

HEXANDRIA Trigynia.

GEN. CHAR. *Cal.* 3-leaved. *Petals* 3, closed. *Seed* 1, superior, naked, triangular. *Stigmas* many-cleft.

SPEC. CHAR. Valves triangular, grained, fringed with bristly teeth. Leaves linear. Whorls crowded.

SYN. Rumex maritimus. *Linn. Sp. Pl.* 478. *Sm. Fl. Brit.* 393. *Huds.* 155.

R. aureus. *With.* 356. *Abbot.* 81. *Hull.* 78.

Lapathum folio acuto, flore aureo. *Raii Syn.* 142.

BY the trivial name of this species we should expect to find it only near the sea; which is far from being exactly the case. It abounds indeed for the most part in marshes within the reach of the tide, but sometimes occurs also very far inland, as at Goldington, Bedfordshire, from whence Mr. Abbot sent this specimen. It is perennial, flowering in July and August; and as the seeds ripen, the whole plant assumes a rich tawny-yellow hue, whence the names of Golden Dock, and *Rumex aureus*, more apposite perhaps than the Linnæan denomination.

The root consists of whorled fibres, as in many aquatic plants. Stem branched, leafy, angular, furrowed, roughish, often red. Leaves linear, entire, flat, not waved. Clusters of flowers of numerous, dense, leafy whorls. Valves of the fruit triangular, each bearing an oblong (not globular) grain, and fringed on each side with about 4 narrow sharp teeth, longer than the valve itself. Seed small.

The *R. maritimus* of Mr. Curtis, *Fl. Lond. fasc.* 3. *t.* 23, which he, as well as Linnæus and Hudson, confounded with this, is a very distinct species, known by its more slender growth, distant whorls, less golden hue, and especially by the shortness of the teeth of its valves. This is not at all a maritime plant. It is described in *Fl. Brit.* by the name of *palustris*.

Fucus tuberculatus.

April 2nd 1804 Published by J. Sowerby

FUCUS tuberculatus.

Tuberculated Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Frond cylindrical, forked; its branches unequal, obtuse, studded with fructification in the upper part; their angles rounded.

SYN. Fucus tuberculatus. *Huds.* 588. *Gooden. and. Woodv. Tr. of Linn. Soc. v.* 3. 198. *Hull.* 325.

F. bifurcatus. *With. v.* 4. 209. *t.* 17. *f.* 1.

F. Kali geniculato similis, non tamen geniculatus, *Raii Syn.* 43.

GATHERED by Mr. D. Turner and Mr. Sowerby in June last in King's Cove on the Cornish coast, where, as well as in Devonshire, it grows in great plenty.

The frond varies in height from 2 to 12 inches, and is attached to the rocks by a small dilated base. It is cylindrical, of a dark olive-colour, erect, very much branched in the upper part, and distinguished by the *axillæ* or angles of the branches being rounded, not acute, and their summits blunt, and of unequal heights, not forming one level surface. Many of the terminal branches are elongated, and studded all over with prominent tubercles containing the seeds. It turns quite black in drying, like most of the olive-coloured *Fuci*.

Lecanora Parella?

LICHEN Perellus.

Crab's-eye Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crustaceous, white, granulated. Shields of the same colour, concave, with a thick blunt border.

SYN. Lichen Parellus. *Linn. Mant.* 132. *Huds.* 530. *With. v.* 4. 17. *Hull.* 288. *Relh: Suppl.* 1. 23. *Abbot.* 262. *Dicks. H. Sicc. fasc.* 10. 23.
Lichenoides leprosum tinctorium, scutellis lapidum cancri figurâ. *Dill. Musc.* 130. *t.* 18. *f.* 10.
L. crustaceum et leprosum, scutellare, cinereum. *Raii Syn.* 70.
Patellaria Perella. *Hoffm. Pl. Lich. v.* 1. 60. *t.* 12. *f.* 5.

FOUND on exposed rocks and stones in mountainous countries, sometimes on walls, sometimes on stones by the sea shore. It forms white very conspicuous round paches, closely adhering to the stone, but easily scraped of, various in thickness, with a granulated, not powdery, surface, and a thin rugged very white spreading border. Shields copious sessile, but prominent, of the same colour as the crust, rather concave, with a thick elevated smoothish margin. Occasionally their disk becomes convex and warty.

This is the French *Orseille* or Orchall, used for dyeing in that country as L. *tartareus*, see our *t.* 156, is in Scotland, and prepared with volatile alkali in a similar manner, of which a full account is given by Professor Hoffmann from a French work of M. Amoreux of Montpellier, published in 1787 by the Academy of Lyons. The plant is more common in the south of France than with us, and is called Perelle d'Auvergne, for so M. Amoreux directs us to spell it, not *Parelle*, which last name belongs to some species of *Rumex*. Tournefort in his Voyage mentions it by this name when he describes the L. *Roccella* at the island of Amorgos. The colour furnished by L. *Perellus* has rather more of a violet hue than that of L. *tartareus*, but each is capable of being so modified as to give any tinge of purple or crimso n

Roccella fuciformis

LICHEN fuciformis.

Flat-leaved Orchal.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leafy, divided, pointed, flat, nearly upright, tapering at each end, greyish white, obscurely downy, set with white mealy warts. Shields convex, blackish.

SYN. Lichen fuciformis. *Linn. Sp. Pl.* 1614. *Dicks. Crypt. fasc.* 3. 17. *With. v.* 4. 51. *Hull.* 295.
Lichenoides fuciforme tinctorium, corniculis longioribus et acutioribus. *Dill. Musc.* 168. *t.* 22, 23. *f.* 61.

GATHERED on coarse granite rocks at Tintagel, near King Arthur's castle on the Cornish coast, by Mr. Sowerby and Mr. D. Turner, who were informed that this species is collected for the dyers, use indiscriminately with L. *Roccella*, *t.* 211, or rather that of the two the *fuciformis* is most used. Mr. Dickson had it from Guernsey. Dillenius truly remarks that it abounds in the East Indies (where it grows to a large size) as well as in the Canary Islands.

It forms dense tufts, each frond being flat or compressed, in which particular it differs from L. *Roccella*, and all botanists have therefore agreed to distinguish them; in colour, surface, powdery warts, in short every other mark except the generally larger size of the *fuciformis*, they entirely agree, and perhaps may be only varieties; but that future investigations upon physiological principles must decide. Some small cylindrical branches now and then occur in the present plant. Besides the powdery warts, we have in one specimen discovered a blackish prominent tubercle; Dillenius describes the tubercles on his specimens *t.* 23 as ash-coloured.

BROMUS sylvaticus.
Slender Wood Brome-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, 2-ranked. *Awn* from below the top. *Inner husk* fringed.

SPEC. CHAR. Spike simple, drooping, leaning one way. Spikelets sessile, roundish. Awns longer than their husk. Leaves hairy.

SYN. Bromus sylvaticus. *Tr. of Linn. Soc. v.* 4. 300. *Sm. Fl. Brit.* 136. *Hull.* 26.

Festuca sylvatica. *Huds. ed.* 1. 38. *With.* 158. *Relh.* 44. *Sibth.* 46. *Mart. Fl. Rust. t.* 114. *Dicks. H. Sicc. fasc.* 13. 9.

Gramen avenaceum dumetorum spicatum. *Raii Syn.* 394.

FREQUENT in copses and thickets by the sides of shady lanes, more especially on a gravelly or sandy soil, flowering July, when its slender form, rising above the surrounding herbage, renders it conspicuous. It becomes still more so in the latter part of summer by assuming a yellowish or tawny hue, especially in the lower leaves. It is of no agricultural use.

The root is fibrous, tufted, perennial. Stem 2 feet or more in height, round, leafy, smoothish, tapering, very slender and a little drooping in the upper part. Leaves spreading, flat, pointed, a little rigid, rough, ribbed, more or less hairy, bright green. Sheaths straight, close, hairy. Stipula short, blunt, torn. Spike simple, drooping, zigzag, formed of 6 or 7 alternate, sessile, cylindrical, linear-lanceolate spikelets, all inclining towards one side, generally downy. Glumes of the calyx unequal, tipped with short awns. Florets from 6 to 9, imbricated, at length a little spreading and somewhat cylindrical, in the upper part strongly ribbed and rough. Awn terminal, rough, generally much longer than the glume. Inner glume blunt, fringed with rigid bristles, on which I am persuaded the essential character of *Bromus* depends more than on the insertion of the awn.

BROMUS pinnatus.

Spiked Heath Brome-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, 2-ranked. *Awn* from below the top. *Inner husk* fringed.

SPEC. CHAR. Spike simple, erect, two-ranked. Spikelets sessile, roundish. Awns shorter than their husk. Leaves almost naked.

SYN. Bromus pinnatus. *Linn. Sp. Pl.* 115. *Tr. of Linn. Soc. v.* 4. 301. *Sm. Fl. Brit.* 137. *Huds. ed.* 1. 41. *Hull.* 26.

Festuca pinnata. *Huds.* 48. *Relh.* 44. *Sibth.* 46. *Abbot.* 22. *Dicks. H. Sicc. fasc.* 13. 8.

Gramen spicâ Brizæ majus. *Raii Syn.* 392.

THIS grass is found on open commons or heaths in a free-stone soil; not unfrequently in Yorkshire, Oxfordshire and Kent, but rarely elsewhere. It is perennial, and flowers in July. Many botanists have united it with the preceding; but its greater smoothness, firmness and rigidity, indeed its whole aspect, seem to authorize a specific distinction.

The root is somewhat creeping. Stem hardly 2 feet high, very smooth, altogether erect, and scarcely tapering in the upper part. Leaves very rarely clothed with a few hairs on the upper side. Sheaths quite smooth and polished. Spikelets in 2 ranks, and not leaning to one side, long, linear, a little downy. Calyx-glumes rather elliptical, many-nerved. Florets more numerous than in B. *sylvaticus*, closely imbricated. Awn terminal as in that species, which induced Mr. Hudson and others to refer both to the genus *Festuca*. This awn in the present plant is shorter than its glume; sometimes so short as to be hardly visible. Inner glume very blunt, fringed with strong rigid bristles, not merely downy as in true *Festuca*.—This grass is even less fit for the food of cattle than the last.

Hesperis matronalis.

May 1, 1809 Published by J. Sowerby, London.

HESPERIS inodora.

Scentless Dame's-violet.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Petals* obliquely twisted. A *gland* on the inside of the shorter stamina. *Pod* straight. *Cal.* closed; 2 of its leaves gibbous at the base.

SPEC. CHAR. Stem erect. Leaves ovato-lanceolate, toothed, sometimes slightly hastate at the base. Petals obtuse.

SYN. Hesperis inodora. *Linn. Sp. Pl.* 927. *Sm. Fl. Brit.* 711. *Huds.* 288. *With.* 586. *Hull.* 147. *Jacq. Austr. t.* 347.

H. sylvestris inodora. *Dill. in. Raii Syn.* 293.

GATHERED on Cotswould ridge, by the road side between Frogmill and Cheltenham, Gloucestershire, by Lord Viscount Lewisham. This should therefore be the H. *inodora* of Hudson and Withering, as it is unquestionably that of the Linnæan herbarium, communicated by Jacquin to Linnæus under the name of *Hesperis tertia Clusii.* How far it is really distinct from the garden H. *matronalis* is by no means certain; for that is altogether without smell in the day-time, and Clusius says they are hardly to be distinguished by any other character. Both flower in May and June, and are generally biennial in fact, though naturally perennial; that is, they are capable, if circumstances are favourable, of flowering for several successive years. The plant before us rises to the height of 2 feet or more, with a round, slightly-branched, stem. Leaves alternate, unequally toothed, insomuch that the larger teeth near the base sometimes give them a kind of hastate figure; but this rarely happens. The pubescence of the whole herb is either simple or forked. Flowers pale rose-coloured. Calyx-leaves cohering by their upper part. Stigma arrow-shaped, at least as the pod increases; but this circumstance is not proper to the whole genus.

Subularia aquatica.

May 1. 1813. Published by J. Sowerby, London.

SUBULARIA aquatica.

Awl-wort.

TETRADYNAMIA Siliculosa.

GEN. CHAR. *Pouch* entire, elliptical: *valves* elliptical, concave, contrary to the partition. *Style* shorter than the pouch.

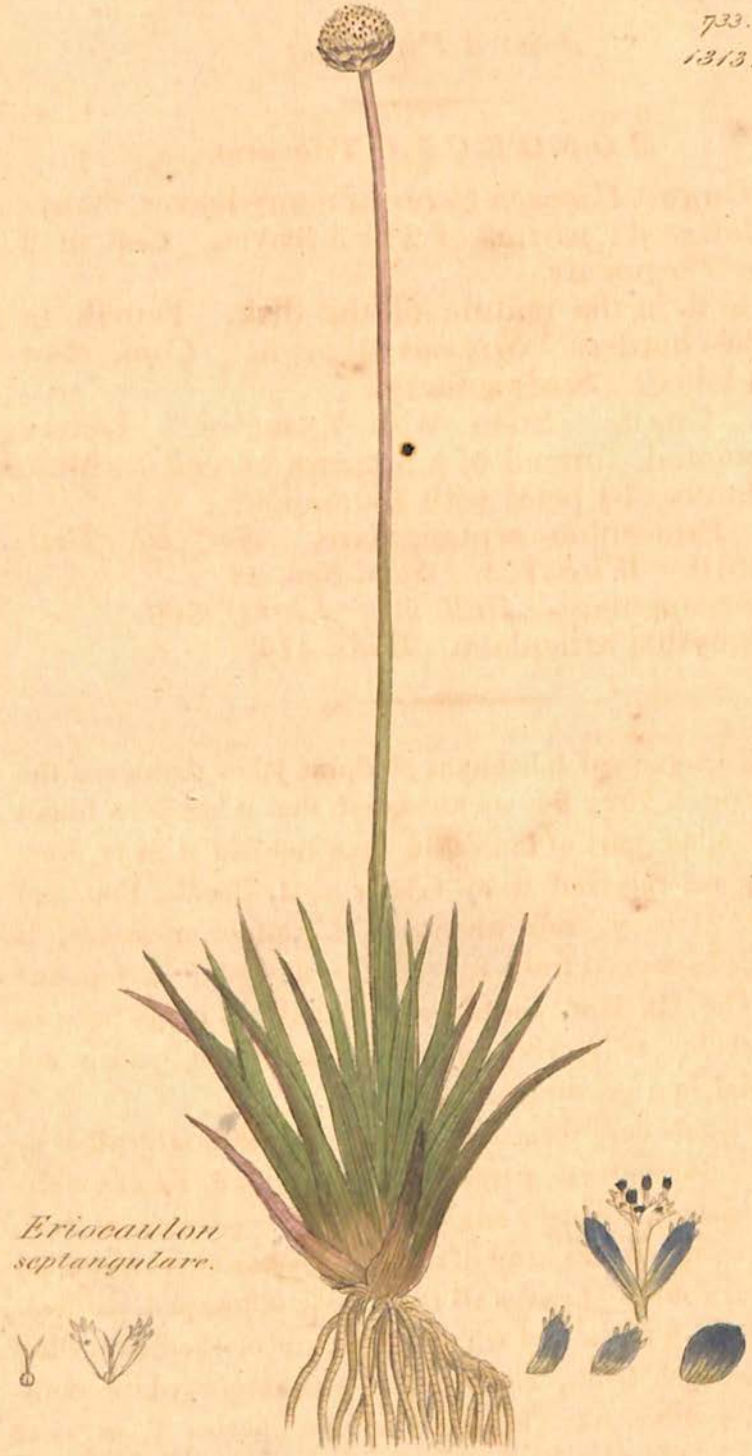
SPEC. CHAR . . . . .

SYN. Subularia aquatica. *Linn. Sp. Pl.* 896. *Sm. Fl. Brit.* 676. *Huds.* 277. *With.* 564. *Hull.* 143. *Lightf.* 337. *Dicks. H. Sicc. fasc.* 5. 9.

S. erecta, junci foliis acutis mollibus. *Raii Syn.* 307.

THIS little plant, however unostentatious in appearance, is no less remarkable for its situation, and mode of flowering under water, than for the peculiarity of its generic character. Sherard first found it in the gravelly bottom of an alpine lake in Ireland. Our specimen was gathered in Scotland by Mr. Mackay. It flowers in July, and lasts but one year.

The root consists of many long simple white fibres. Leaves all radical, awl-shaped (whence the name), with a recurved point. Stalk seldom more than 2 inches high, simple, smooth, bearing a simple spike of small white flowers, always immersed in the water, and so closed that the impregnation is accomplished in safety under the protection of the calyx and petals; otherwise the pollen would be spoiled before it could perform its office. By the first appearance of the flower and seed-vessel one would readily take it for a *Draba*, see *t.* 586; but on examination an essential difference is found in the partition being contrary to the valves, not parallel with them, and yet those valves are not keeled as in *Lepidium*, only concave; neither is the pouch notched as in that genus.



Eriocaulon
septangulare.

ERIOCAULON septangulare.

Jointed Pipewort.

MONOECIA Triandria.

GEN. CHAR. *Common Calyx* of many leaves, many-flowered: *partial* of 2 or 3 leaves. *Cor.* in 2 or 3 segments.

Male fl. in the middle of the disk. Female in the border. *Stigmas* 2 or 3. *Caps.* 2-or 3-lobed. *Seeds* solitary.

SPEC. CHAR. Stem with 7 angles. Leaves pointed, formed of a network of cells. Male florets of 1 petal with 4 stamina.

SYN. Eriocaulon septangulare. *Sm. Fl. Brit.* 1010. *With.* 184. *Sym. Syn.* 41.

E. decangulare. *Hull.* 29. *Lightf.* 569.

Nasmythia articulata. *Huds.* 415.

A LESS general inhabitant of alpine lakes than even the *Subularia, t.* 732; for we know not that it has been found in any other part of the world than the isle of Skye, from whence we received it by favour of J. Brodie, Esq. and Mr. J. Mackay, and where, as Lightfoot mentions, it abounds in several fresh-water lakes, flowering in September. The Rt. Hon. Sir Joseph Banks has lately been so fortunate as to receive plenty of the roots, which are perennial, in a growing state.

The whole herb seems composed of tubes intercepted by numerous transverse partions. Stem naked, simple, solitary, twisted, having 7 angles, scarcely ever more or less, and bearing a dense head of many male flowers surrounded by female ones. Leaves all radical, swordshaped, pointed. The blackish calyx and white corolla are clothed with silky close-pressed hairs, and tufted with snow-white club-shaped pubescence. Stamina in this species 4, in most others 3. The male flowers have abortive blunt black stigmas; the females differ in having acute ones, no stamina, and the corolla divided to the base.

Veronica arvensis.

VERONICA arvensis.

Wall Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of one petal, four-cleft, wheel-shaped; lower division narrowest. *Capsule* two-celled.

SPEC. CHAR. Flowers solitary. Leaves ovate, deeply serrated; the floral ones lanceolate, longer than the flower-stalk. Stem erect.

SYN. Veronica arvensis. *Linn. Sp. Pl.* 18. *Sm. Fl. Brit.* 24. *Huds.* 6. *With.* 12. *Hull.* 5. *Relh.* 8. *Sibth.* 6. *Abbot.* 5. *Curt. Lond. fasc.* 2. *t.* 2.

V. flosculis singularibus, cauliculis adhærentibus. *Raii Syn.* 279.

FREQUENT in dry gravelly fields, waste sandy places, and on the tops of walls, flowering in May.

Root annual, fibrous. Whole herb generally of a paler colour than the most common species of *Veronica, agrestis* and *hederifolia,* nor is it so apt to turn black in drying. The stem is about 6 inches high, erect, generally branched at the base. Leaves opposite, ovate, hairy, strongly serrated; the lower ones chiefly on short foot-stalks; the upper ones, from whose bosoms the flowers are produced, are lanceolate, narrow and entire, so as more properly to be called *bracteæ;* and hence Dr. Withering has lately removed this and V. *verna* to the spiked section of the genus, to which however they are not naturally akin, nor ought they to be separated from *triphyllos* and other annual species. The flowers of V. *arvensis* stand on short stalks, and are small, pale-blue, with 4 lanceolate, entire, rather unequal, segments to their calyx. Capsule inversely heart-shaped, compressed, ciliated. Seeds several, elliptical, flat, with a little dimple in the middle of one side. The form of the seeds and of the calyx-leaves will be found to afford the most beautiful and certain marks of specific distinction, particularly of the annual species, in this genus.

Sisymbrium
officinale.

ERYSIMUM officinale.

Common Hedge-mustard.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Pod* straight, columnar, exactly square. *Cal.* closed. *Stigma* blunt.

SPEC. CHAR. Pods close-pressed to the main stalk. Leaves runcinate.

SYN. Erysimum officinale. *Linn. Sp. Pl.* 922. *Sm. Fl. Brit.* 706. *Huds.* 286. *With.* 583. *Hull.* 146. *Relh.* 250. *Sibth.* 201. *Abbot.* 144. *Curt. Lond: fasc.* 5. *t.* 50. *Woodv. Suppl. t.* 244.

Eruca hirsuta, siliquâ cauli appressâ, Erysimum dicta. *Raii Syn.* 298.

NO plant can be more common, nor hardly any less attractive, than the Hedge-mustard; and if we should be led by the name *officinale* to expect any latent medical virtues, we should be scarcely less disappointed than in its external charms; for, whatever stimulant properties it may possess, they are certainly much weaker than those of the *Sinapis* and many others of this natural order, nor does it appear to have any other qualities which they do not possess.

E. *officinale* is an annual, flowering in June and July, and to be found in waste ground, on hedge banks, and similar situations, where its long spreading branches, set with numerous close-pressed seed-pods, and terminating in a little dense cluster of lemon-coloured flowers, make it easily known. The whole plant is rather hairy. Leaves lyrate, their lobes *runcinate* or hooked backwards, unequally toothed. Their colour is a dull hoary green.

Luzula
pilosa.

JUNCUS pilosus.

Hairy Rush.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Caps.* superior, of 3 valves, with 1 or 3 cells. *Seeds* several. *Stigmas* 3.

SPEC. CHAR. Stem leafy. Leaves flat, hairy. Panicle cymose, divaricated. Flowers solitary.

SYN. Juncus Pilosus. *Linn. Sp. Pl.* 468. *Sm. Fl. Brit.* 384. *Huds.* 151. *With.* 349. *Hull.* 76. *Relh.* 145. *Sibth.* 115. *Abbot.* 80. *Curt. Lond. fasc.* 5. *t.* 25. *Dicks. II. Sicc. fasc.* 14. 15.

Gramen nemorosum hirsutum vulgare. *Raii Syn.* 416.

FREQUENT in shady groves and thickets, on broken banks among dead leaves, and similar situations, where it flowers in March and April. The root is perennial, and throws out creeping shoots.

Stems near a foot high, round, polished, leafy. Leaves linear-lanceolate, grassy, of a bright shining green, pointed, entire, fringed with distant, long, soft, white hairs; the radical ones are most numerous and largest. Panicle terminal, compound, much branched in the manner of a cyme, the branches widely spreading, insomuch that the lower ones at length become quite pendulous. Flowers solitary, each accompanied by a pair of sheathing acute bracteæ. The leaves of the calyx are lanceolate, pointed, dark-brown, bordered with white. Stamina very short, with large square yellow antheræ. Capsule ovate, obtuse, of a pale yellowish hue, which, contrasted with the brown calyx, renders it conspicuous.

This rush has not yet been applied to any agricultural or œconomical use. Its tough dry herbage is not much relished by cattle in general, though horses will eat it; but its places of growth are often scarcely accessible to them.

Luzula sylvatica.

JUNCUS sylvaticus.

Great Wood Rush.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Caps.* superior, of 3 valves, with 1 or 3 cells. *Seeds* several. *Stigmas* 3.

SPEC. CHAR. Stem leafy. Leaves flat, hairy, pointed. Panicle cymose, doubly compound. Flowers clustered.

SYN. Juncus sylvaticus. *Sm. Fl. Brit.* 385. *Huds.* 151. *Sibth.* 116. *Abbot.* 80. *Curt. Lond. fasc.* 5. *t.* 26. *Dicks. H. Sicc. fasc.* 13. 13.

J. pilosus δ, *Linn. Sp. Pl.* 468.

J. maximus. *With.* 349.

Gramen nemorosum hirsutum latifolium maximum. *Raii Syn.* 416.

THIS generally grows in the same places as the J. *pilosus*, and is nearly as common, but blossoms a month later. It sometimes covers the ground, as with a dry elastic mat, to the exclusion of most other plants.

Linnæus considered this as a variety of J. *pilosus*, and indeed confounded many other most distinct species under *pilosus*, and *campestris*. He has left behind him a manuscript note saying that "those who wish to make many species out of these two may consult Haller." Truth obliges us to confess that Haller has elucidated these plants, which are mostly alpine, better than Linnæus.

The plant now before us is known from *pilosus* not only by the greater size of its herbage, but essentially by the flowers growing in clusters, generally about 3 in each, not singly, and by the branches of the panicle being less divaricated, and not pendulous. The flowers are also smaller than in that last described.

This is generally reckoned as useless as the other. Both seem however not ill calculated for packing, or for stuffing mattresses instead of common straw, being very soft and elastic.

Collema cretaceum?

LICHEN cretaceus.

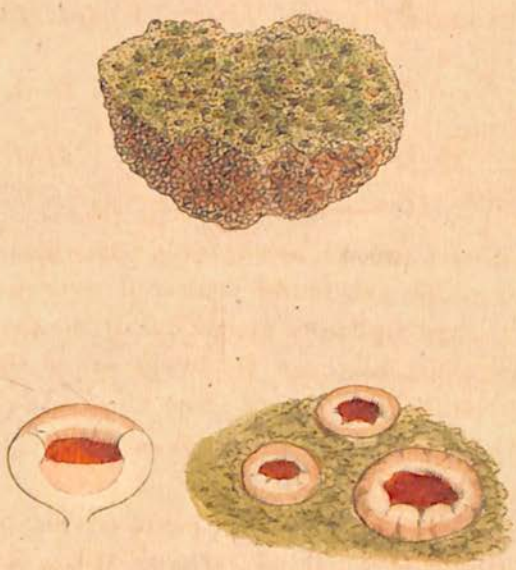
Chalk Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust lobed, stellated, dark-olive. Shield central, solitary, elevated, brownish-flesh-coloured, with a paler elevated entire border.

WE believe this curious little Lichen to have hitherto remained undescribed. Though very common on chalk, as well as on the white coating of flint stones, over which it is scattered in the form of minute olive-coloured or blackish stars, it is seldom found in fructification, to which must be attributed its having so long remained in obscurity. Our perfect specimens were gathered on chalk by Dr. Noehden, and Mr. Gotobed of Eton. Few of them exceed the diameter of a large pin's head, and are composed of a spreading lobed prominent crust, in whose centre, when the plant is in perfection, stands a very conspicuous elevated shield, of a pale reddish brown, or rather a brown flesh-colour, somewhat turbinate, smooth; its disk concave, surrounded with a paler, elevated, smooth and entire border.



Lecidea marmorea?

LICHEN marmoreus.
Salmon-coloured Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust pale, thin, scattered. Shields cup-shaped, salmon-coloured, with a thick, elevated, inflexed, pale flesh-coloured, often crenate border.

SYN. Lichen marmoreus. *Dicks. Crypt. fasc.* 2. 18. *With. v.* 4. 22. *Hull.* 291.

L. Ulmi. *Swartz. Nov. Act. Upsal. v.* 4. 247. *Herb. Linn.*

L. tricolor. *With. v.* 4. 23. *t.* 31. *f.* 6. *Hull.* 291.

FOR the most part this Lichen is only to be discovered by its shields, which are found scattered over decayed mosses in wet shady places, generally in mountainous countries; though it has been found on stone walls in Norfolk in a northern exposure; as on Corpusty church, by the Rev. Mr. Bryant, and Mr. D. Turner. Mr. Griffith has found it on calcareous sandstone in Wales. Sometimes it occurs on trees; and Dr. Swartz having found it on the Elm in Sweden, called it L. *Ulmi*. When it grows on trees the crust is visible by its greenish white colour, though extremely thin, and by no means lobed or granulated; on old mosses it soon vanishes almost entirely, what remains of it being only such slight portions as are necessary to fix the shields to the minute leaves, fibres, or twigs, on which they grow. Each shield is but the size of the smallest pin's head, or smaller, prominent, concave, of a fine salmon or aurora colour, encompassed by a thick elevated inflexed margin of the most delicate pale flesh-colour, and with a marble-like semitransparency, externally so uneven as to appear mealy or downy, which however it is not. The disk at length falls out, and this waxy covering often remains entire.

We apprehend a great error in the supposed metamorphosis of this plant into *Sphæria sulcata* as mentioned in Withering.

74

2119

Squamaria hypnorum?

LICHEN hypnorum.

Straggling Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust green, granulated. Shields flat, reddish brown, with an inflexed, pale, lobed border.

SYN. Lichen hypnorum. *Fl. Dan. t.* 956. *Dicks. Crypt. fasc.* 3. 14. *With. v.* 4. 22. *Hull.* 290.

Verrucaria granulosa. *Hoffm. Pl. Lich. t.* 30. *f.* 3.

MR. DICKSON first made this known as a British species. It grows upon mosses, sometimes on the ground, in barren sandy places. We have received it from Dr. Babington of Ludlow, and from Mr. D. Turner. It does not seem to be confined to any particular country. Its crust is visible enough in the form of greyish green globules or scales, spreading irregularly over mosses, or dead grasses, and bearing small straggling shields, whose disk is flat or convex, of a pale chesnut brown, surrounded by a lobed incurved border, which when young is somewhat granulated and of the colour of the crust, but by age it becomes of a pale brown, more cracked and less granulated. In this state the shields might be taken for old ones of the L. *marmoreus*, did not an investigation of both plants in their various stages of growth render it impossible to confound them.

We quote Hoffmann on the authority of Dickson and Ehrhart; for his figure represents the shields in so advanced a state, we should hardly have recognized them.

741
663.

Agrostemma Githago

AGROSTEMMA Githago.
Corn Cockle.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* of one leaf, coriaceous. *Pet.* 5, with claws; their limb obtuse, undivided. *Caps.* superior, of one cell; the orifice with 5 teeth.

SPEC. CHAR. Hairy. Calyx reaching beyond the corolla. Petals entire, destitute of a crown.

SYN. Agrostemma Githago. *Linn. Sp. Pl.* 624. *Sm. Fl. Brit.* 493. *Huds.* 198. *With.* 431. *Hull.* 101. *Relh.* 176. *Sibth.* 145. *Abbot.* 100. *Curt. Lond. fasc.* 3. *t.* 27. *Mart. Fl. Rust. t.* 105.

Lychnis segetum major. *Raii Syn.* 338.

BUT too common in corn-fields, to the ornament of which however it greatly contributes, raising its fine purple flowers to a level with the ripening ears in June and July; after which the round black seeds are either scattered upon the ground, or gathered in with the harvest. It is best eradicated by the hand before it flowers, or indeed as soon as it can be distinguished from the young corn, which is the case at a very early period.

Root small, annual. Whole herb rough with hoary upright bristles. Stem 2 or 3 feet high, branched, spreading, round, leafy. Leaves opposite, linear-lanceolate, entire. Flowers terminal, on long stalks, solitary, large, and very conspicuous. Calyx with 10 ribs, and 5 linear leafy teeth, longer than the corolla, and at length deciduous, leaving the coriaceous body of the calyx investing the hard smooth seed-vessel. The petals have no teeth or crown at their common centre of union, as in some foreign species.

We can scarcely think that this genus ought to be kept separate from *Lychnis*, the coriaceous calyx and undivided petals being all that distinguish it. If all the species of *Lychnis* which have a capsule with one cell (the rest having 5 cells) were referred to *Agrostemma*, it would make a very unnatural assemblage, though such a decided character might look well upon paper.

742
990.

Ulex Europæus

ULEX europæus.
Common Furze, or Whin.

DIADELPHIA Decandria.

GEN. CHAR. *Cal.* of 2 leaves, almost as long as the *pod.* *Stamina* all connected.

SPEC. CHAR. Teeth of the calyx obsolete, converging. Bracteæ ovàte, lax. Branches erect.

SYN. Ulex europæus. *Lin. Sp. Pl.* 1045. *Sm. Fl. Brit.* 756. *Huds.* 312. *Forst. in Sym. Syn.* 160. *With.* 626, *var.* 1. *Hull.* 159. *Relh.* 269. *Sibth.* 220. *Abbot.* 154. *Fl. Dan. t.* 608. Genista spinosa vulgaris. *Raii. Syn.* 475.

BARREN sandy heaths and commons produce this plant in profusion; nor can any thing be conceived more brilliant than Putney heath, for example, in the month of May, when its honey-scented blossoms spread in one sheet of "vegetable gold" over the whole country. Linnæus is reported on his arrival in England to have fallen on his knees in a rapture of admiration at this spectacle. He always lamented that he could hardly preserve the Furze alive through a Swedish winter, even in a green-house. Indeed our own frosts frequently cut it down to the root.

Stem shrubby, composed of innumerable, dense, green, spinous, striated branches. Leaves awl-shaped, solitary, pungent, roughish, deciduous. Flowers axillary, on short downy stalks, large, bright-yellow. Calyx of two, pale-green, downy, somewhat rusty, concave leaves, with a pair of ovate, spreading, downy bracteæ at their base. The uppermost calyx-leaf terminates in 2, the lowermost in 3, minute blunt teeth, so closely adhering together as to be not at first discernible. The stamina are all united at their base, so as to be in fact monadelphous. Pod oblong, downy, containing about 4 seeds.

The *Ulex* is much used for firing by the poor. It ought not to be cut on the same spot more than once in 3 or 4 years, when it attains its full size.

743
991

Ulex nanus.

ULEX nanus.

Dwarf Furze.

DIADELPHIA Decandria.

GEN. CHAR. *Cal.* of 2 leaves, almost as long as the *pod*. *Stamina* all connected.

SPEC. CHAR. Teeth of the calyx lanceolate, spreading. Bracteæ minute, close-pressed. Branches reclining.

SYN. Ulex nanus. *Forst. in Sym. Syn.* 160. *Sm. Fl. Brit.* 757.

U. europæus β. *Linn. Sp. Pl.* 1045. *Huds.* 312. *Relh.* 270. *With.* 626, *var.* 2. *Hull.* 159, *var.* 2.

Genista spinosa minor. *Raii Syn.* 475.

THIS, which most botanists have considered as a variety of the Common Furze, is by no means so general a plant, though it grows copiously upon dry elevated heaths in many parts of the kingdom. It is at first sight distinguished by its much more humble, and partly prostrate, growth; its smaller and paler flowers, which are chiefly produced from August to October; and a certain elongated and cylindrical form of the branches laden with flowers interspersed with horizontal, or partly deflexed, spines. These however are not all its distinguishing marks. The flowers afford certain specific characters. The bracteæ are very minute, brown, close-pressed to the calyx, often hardly visible. The calyx is more silky and yellow; its teeth deeply cut, spreading, and very evident: a circumstance which will always prevent its being confounded with the other species.

These plants, though so common with us, are by no means of general occurrence throughout Europe. Portugal, and the western parts of France, produce them more plentifully than any other country except our own.

744

1244

Sparganium
ramosum.

SPARGANIUM ramosum.

Branched Bur-reed.

MONOECIA Triandria.

GEN. CHAR. Male, *Cal.* 3-leaved. *Cor.* none. Female, *Cal.* 3-leaved. *Cor.* none. *Drupa* dry, with 1 seed.

SPEC. CHAR. Leaves triangular at the base, their sides concave. Common flower-stalk branched. Stigma linear.

SYN. Sparganium ramosum. *Sm. Fl. Brit.* 961. *Huds.* 401. *With.* 112. *Hull.* 203. *Sibth.* 25. *Curt. Lond. fasc.* 5. *t.* 60. *Raii Syn.* 437. S. erectum. *Linn. Sp. Pl.* 1378. *Relh.* 348. *Abbot.* 200.

COMMON in ditches and about the banks of rivers, flowering in July and August.

The root is perennial and creeping. Stem upright, about three feet high, round, leafy, smooth, divided at the top into many alternate, slightly zigzag, flowering-branches. Radical leaves sword-shaped, erect, smooth, entire; at their base triangular, with their sides concave or channelled, not flat. The stem leaves are merely concave, and sheathing at their base. Heads of flowers alternate, sessile, many-flowered; the lowermost female; the upper male, more numerous, and closer together. Calyx-leaves spatulate, brownish, shorter than the stamina. Antheræ yellowish-white. Germen of 2 cells, though generally one of them is obliterated and abortive in the fruit. Style short. Stigma long, linear, oblique, downy on one side, for the most part solitary; sometimes there are two stigmas. The fruit ripens into brown prickly heads of dry deciduous *drupæ*, by which, as well as its spreading roots, the plant increases abundantly.

The parts of fructification vary much in number, as usual in monoecious and dioecious plants; one of the many reasons for keeping them in distinct classes from the hermaphrodite ones.

Sparganium simplex

SPARGANIUM simplex.

Unbranched Upright Bur-reed.

MONOECIA Triandria.

GEN. CHAR. Male, *Cal.* 3-leaved. *Cor.* none. Female, *Cal.* 3-leaved. *Cor.* none. *Drupa* dry, with 1 seed.

SPEC. CHAR. Leaves triangular at their base, their sides flat. Common flower-stalk simple. Stigma linear.

SYN. Sparganium simplex. *Sm. Fl. Brit.* 962. *Huds.* 401. *With.* 112. *Hull.* 203. *Sibth.* 25. *Abbot.* 200. *Curt. Lond. fasc.* 5. *t.* 67. *Dicks. H. Sicc. fasc.* 6. 7.

S. erectum β. *Linn. Sp. Pl.* 1378.

S. non ramosum. *Raii Syn.* 437.

NOT very rare in pools and ditches, particularly where the soil is gravelly, flowering in July and August.

This is smaller than the more common S. *ramosum*, of which it has been considered as a variety, but certainly without reason. Mr. Curtis has well remarked that the sides of the triangular bases of the radical leaves in this are flat or level, not concave. The flowering part of the stem is simple, not branched. The lowermost head of flowers stands generally on a partial stalk. The calyx is generally green, or at least of a paler brown than in the former. The stigma indeed, as in that, is long and linear, not short and ovate as in S. *natans*, to which the present species is in other respects perhaps more allied than to S. *ramosum*. See our *t.* 273, where many particulars relative to the botanical history of these plants are discussed.

The S. *simplex* sometimes varies with two stigmas, like the *ramosum*.

According to Linnæus's theory of hybrid plants, this should be a mule produced by S. *ramosum* impregnated by S. *natans;* but we would be cautious in selecting facts to support so fanciful an hypothesis.

740
1400.

Taxus baccata.

TAXUS baccata.

Yew Tree.

DIOECIA Monadelphia.

GEN. CHAR. Male, *Cal.* none. *Cor.* none. *Stam.* numerous. *Anth.* peltate, lobed.

Female *Cal.* cup-shaped, entire. *Style.* none. *Seed* 1, standing on the pulpy calyx.

SPEC. CHAR. Leaves thickly set.

SYN. Taxus baccata. *Linn. Sp. Pl.* 1472. *Huds.* 437. *With.* 614. *Hull.* 222. *Relh.* 374. *Sibth.* 216.

Taxus. *Raii Syn.* 445.

THE proper wild situation of the common yew is in mountainous woods, or more particularly the clefts of high calcareous rocks. Several fine old trees of this species, from which our specimen was taken, are to be seen on some sandy rocks about 2 miles from Withyam and 5 from Tunbridge. It flowers in March and April. The fruit ripens in autumn.

The trunk is known by its straight form and smooth deciduous bark. The wood is very hard, tough, and of a fine grain, famous in antient times for making bows, and used in more modern days in the finer kinds of cabinet work for inlaying. Church-yards in the mountainous parts of Britain, especially in Wales, are always planted with yew-trees, supposed to have been intended to furnish bows for the village archers. The gloomy funereal aspect of the tree might be another cause of its being planted in such situations; its being easily clipped without injury into the most whimsical shapes, seems the only reason why it could find a place in the pleasure garden. The leaves are thickly set, linear, smooth, ever-green. Flowers axillary, enveloped with imbricated bracteæ; the male on one tree, sulphur-coloured, without a calyx; the female on another, with a small green calyx sustaining the oval flattish seed, which calyx at length becomes red, soft, full of a sweet slimy pulp, that is not unwholesome, though the leaves are very poisonous.

Senecio vulgaris.

SENECIO vulgaris.

Common Groundsel.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Recept.* naked. *Down* simple. *Cal.* cylindrical, many-leaved, equal scaly at the base; scales dead at the tip.

SPEC. CHAR. Flowers without a radius, scattered. Leaves sinuated in a pinnate form, toothed, embracing the stem.

SYN. Senecio vulgaris. *Linn. Sp. Pl.* 1216. *Sm. Fl. Brit.* 881. *Huds.* 365. *With.* 721. *Hull.* 186. *Relh.* 315. *Sibth.* 252. *Abbot.* 182. *Curt. Lond. fasc.* 1. *t.* 61. *Raii Syn.* 178.

EVERY one knows the Common Groundsel, a weed found in all kinds of cultivated ground, as well as on banks by road-sides, and similar places. It is annual, and flowers almost all the year round. The flower-buds and young tops are the food of many small birds, and are given to Canary-birds and others in a state of confinement. In several parts of England it is called Simson, apparently a corruption of the Latin *Senecio*, perhaps through the medium of the French *Senesson*.

The herb varies in size, and is either altogether smooth, or slightly clothed with soft hairs and a kind of cottony down, especially the backs of the leaves. The colour of the leaves is a bright shining green, and their smell merely herbaceous, without any very peculiar odour. Flowers terminal, somewhat panicled. All the scales of the calyx very conspicuously withered, and black at the tip. Corolla composed of yellow tubular hermaphrodite fertile florets, without any radiating ones, so that this species strictly belongs to the first order of *Syngenesia*. Seeds furrowed, pubescent. Down which crowns the seed sessile, rough.

74.
1153.

Senecio sylvaticus.

SENECIO sylvaticus.

Mountain Groundsel.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Recept.* naked. *Down* simple. *Cal.* cylindrical, many-leaved, equal, scaly at the base; scales dead at the tip.

SPEC. CHAR. Radius revolute. Leaves pinnatifid, lobed, toothed. Scales of the calyx short. Stem erect, straight, corymbose.

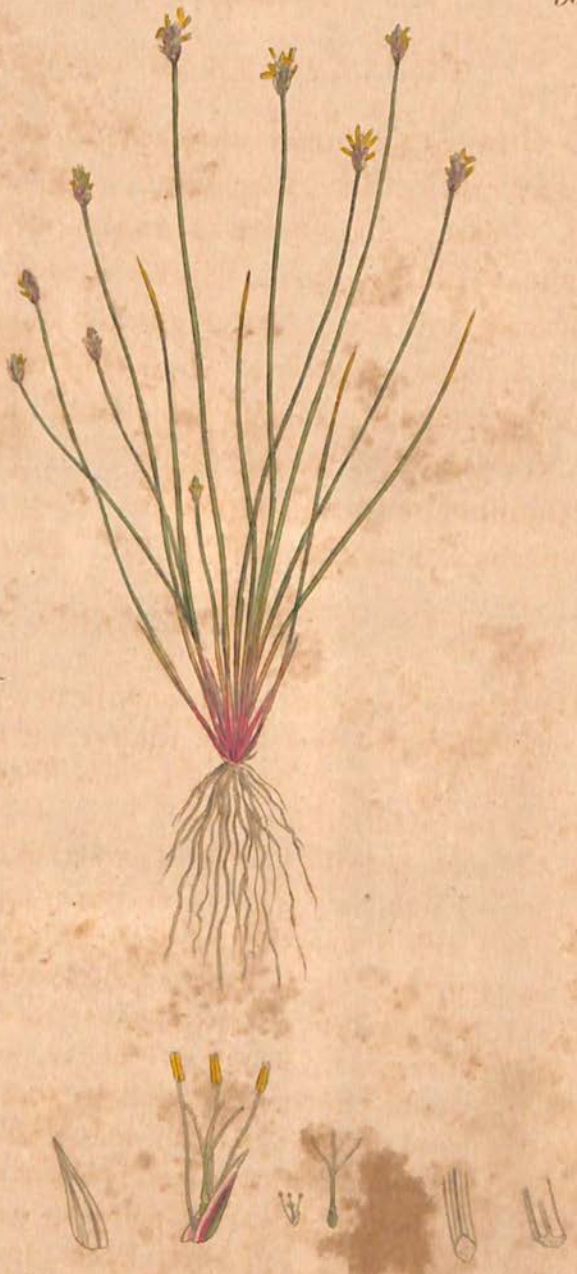
SYN. Senecio sylvaticus. *Linn. Sp. Pl.* 1217. *Sm. Fl. Brit.* 883. *With.* 722. *Hull.* 186. *Sibth.* 253. *Abbot.* 182.

S. viscosus β. *Huds.* 365.

S. minor latiore folio, sive montanus. *Dill. in Raii Syn.* 198.

MR. HUDSON was almost singular in the opinion that this plant was a variety of the S. *viscosus* of Linnæus, delineated in our first vol. *t.* 32, to which we see no reason to assent. That species has a branched spreading stem about a foot high; flowers less corymbose, twice or thrice as large as these, with a much more conspicuous radius, and the calyx-scales nearly equal to the calyx itself; this on the contrary has a straight upright wand-like stem, about 3 feet high; upper leaves more finely divided; flowers corymbose, numerous, much smaller and paler, with a short small recurved radius, and the calyx-scales small and short as in most of the genus; the herb, though almost equally unpleasant in its scent, is however much less viscid.

S. *sylvaticus* is annual, and flowers in July. It loves a gravelly or sandy soil, and is found in bushy spots upon heaths, where trees or furze have been cut down; especially where brakes or other plants have been burnt in the preceding autumn.



Eleocharis acicularis

SCIRPUS acicularis.

Least Club-rush.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated every way, all fertile. *Cor.* none. *Seed* 1.

SPEC. CHAR. Stem with 4 angles, with a blunt sheath at its base. Spike ovate, acute, terminal, solitary. Outer glumes the largest.

SYN. Scirpus acicularis. *Linn. Sp. Pl.* 71. *Sm. Fl. Brit.* 51. *Huds.* 18. *Sibth.* 23. *Dicks. H. Sicc. fasc.* 14. 1.

S. minimus, capitulis equiseti. *Raii Syn.* 429.

Cyperus acicularis. *With.* 78. *Hull.* 13.

THIS minute *Scirpus* grows in damp heathy places, where water has stagnated during the winter, but is very rarely met with. Our specimen came from Wanstead Park, Essex, in the middle of August.

Root fibrous, perennial. Stems numerous, simple, from 2 to 4 inches high, very slender, erect, roundish when fresh, but marked with 4 smooth angles, which in drying become very conspicuous. The base is invested with a tight blunt beardless sheath. Leaves few, shorter than the stems, obsoletely quadrangular, being flat above, and somewhat rounded beneath. Spike small, solitary, terminal, ovate, acute, composed of 5 or 6 flowers, whose glumes are truly imbricated in every direction, not two-ranked, so that it properly belongs to this genus, and by no means, either in character or habit, to *Cyperus*. Each glume is sharply keeled, pointed; the margin membranous; the 2 lowermost are rather the largest, and sometimes barren. Seed elliptical, without any bristles at the base.

MELICA cærulea.

Purple Melic-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, with about 2 flowers, and the rudiment of another between them. *Cor.* of 2 valves.

SPEC. CHAR. Petals acute, beardless. Panicle dense. Flowers erect, cylindrical.

SYN. Melica cærulea. *Linn. Mant.* 2. 325. *Sm. Fl. Brit.* 93. *With.* 139. *Hull.* 21. *Relh.* 32. *Sibth.* 39. *Abbot.* 16. *Curt. Lond. fasc.* 5. *t.* 11.

Aira cærulea. *Linn. Sp. Pl.* 95. *Huds.* 33.

Gramen pratense serotinum, paniculâ longâ purpurascente. *Raii Syn.* 404.

FREQUENT in the most barren sandy boggy places, especially about pools upon mountainous heaths, flowering in August, and varying in height from 6 to 18 inches, according to the nourishment it meets with.

Root perennial, of many strong fibres. Whole herb harsh, rigid, rather glaucous. Stems with a sort of bulb at their base, and one joint a little above it. Leaves upright, sharp-pointed, striated, entire, often hairy on the upper surface. Stipulæ of a few hairs at the top of the sheath. Panicle oblong, erect, of a violet hue, branched, but not spreading. Flowers erect, smooth; their glumes deeply furrowed, beardless. Stamina very slender. Antheræ and stigmas deep purple. One floret is sessile, the other raised on a stalk, which is generally extended above it, and bears one or two imperfect florets besides; but this being not always the case, Linnæus and others have formerly referred this grass to *Aira*. In shady places the panicle is pale or whitish.

Hydrocotyle vulgaris

HYDROCOTYLE vulgaris.

Marsh Penny-wort. White-rot.

PENTANDRIA Digynia.

GEN. CHAR. *Umbel* simple. *Involucrum* of about 4 leaves. *Petals* undivided. *Fruit* circular, compressed.

SPEC. CHAR. Leaves peltate. Umbels of five flowers.

SYN. Hydrocotyle vulgaris. *Linn. Sp. Pl.* 338. *Sm. Fl. Brit.* 290. *Huds.* 110. *With.* 284. *Hull.* 58. *Relh.* 107. *Sibth.* 91. *Abbot.* 57. *Curt. Lond. fasc.* 6. *t.* 19. *Raii Syn.* 222.

ON boggy commons, moist heaths, and all watery places in general that are not stagnant, the *Hydrocotyle vulgaris* abounds, and may be found in flower from May to the end of June. The herb is perennial, and the prostrate stems spread very far, taking root at every joint, and also producing from the same point several upright, simple, smooth or hairy, footstalks, each of which supports a horizontal, peltate, roundish, crenate, smooth and shining leaf, as well as one or more flower-stalks not so high as the leaves, having a pair of bracteæ at their base, and bearing an umbel of 5 flowers, which is often proliferous, producing another such umbel from its centre; but the partial stalks are never branched or compounded like those of most umbelliferous plants; indeed they are so short as to be scarcely discernible. Involucrum of 4 or 5 membranous leaves. Calyx very minute. Petals ovate, spreading, undivided, white or reddish. Fruit orbicular, furrowed, compressed.

The name of White-rot was given from a supposition that this plant caused the disease in sheep called the rot; but it is doubtful if they will ever taste it, and most people now attribute that disease to the animals inhabiting wet pastures, where indeed the *Hydrocotyle* grows, but which are in some other way noxious to their constitution.

Anthriscus sylvestris.

CHÆROPHYLLUM sylvestre.
Smooth Cow-parsley.

PENTANDRIA Digynia.

GEN. CHAR. *General Invol.* none; *partial* reflexed, concave. *Petals* heart-shaped. *Fruit* oblong, smoothish.

SPEC. CHAR. Stem striated, smooth; slightly swelling below the joints.

SYN. Chærophyllum sylvestre. *Linn. Sp. Pl.* 369. *Sm. Fl. Brit.* 326. *Huds.* 124. *With.* 308. *Hull.* 63. *Relh.* 121. *Sibth.* 100. *Abbot.* 66. *Curt. Lond. fasc.* 4. *t.* 25. *Mart. Fl. Rust t.* 96.
Cicutaria vulgaris. *Raii Syn.* 207.

FREQUENT about hedges in the borders of rather fertile pastures, flowering about the end of April or early in May, being one of our earliest umbelliferous plants.

Root perennial, spindleshaped, slightly milky, but little branched. Stem about 3 feet high, erect, branched, leafy, round, striated, a little swelled below the joints, more especially as the plant advances in age; it is for the most part downy towards the bottom, but the upper part is sleek, and in general (though not always) devoid of pubescence. Leaves triply pinnate, the leaflets deeply cut, almost sessile, rough at the edge. Umbels when young more or less drooping, though commonly less so than in *C. temulentum*; as the flowers expand they become quite erect. *Involucella* ovate, membranous, fringed with thick-set white hairs. Flowers whitish; their stalks smooth. Petals more or less notched, rarely entire, a little irregular. Fruit oblong, somewhat elliptical, composed of 2 nearly cylindrical seeds, externally very slightly ribbed, and destitute of all roughness.

The whole herb has a sweetish carrot-like smell and taste, and is eaten by domestic cattle. Rabbits are said to be peculiarly fond of it.

The almost equally common *C. temulentum* is distinguished by its more swelling, spotted, and very rough stem, and bristly flower-stalks.

Geranium dilsectum

GERANIUM dissectum.

Jagged-leaved Crane's-bill.

MONADELPHIA Decandria.

GEN. CHAR. *Cal.* 5-leaved. *Pet.* 5, regular. *Nectary* 5 glands. *Fruit* beaked, separating into 5 capsules, each tipped with a long recurved naked awn.

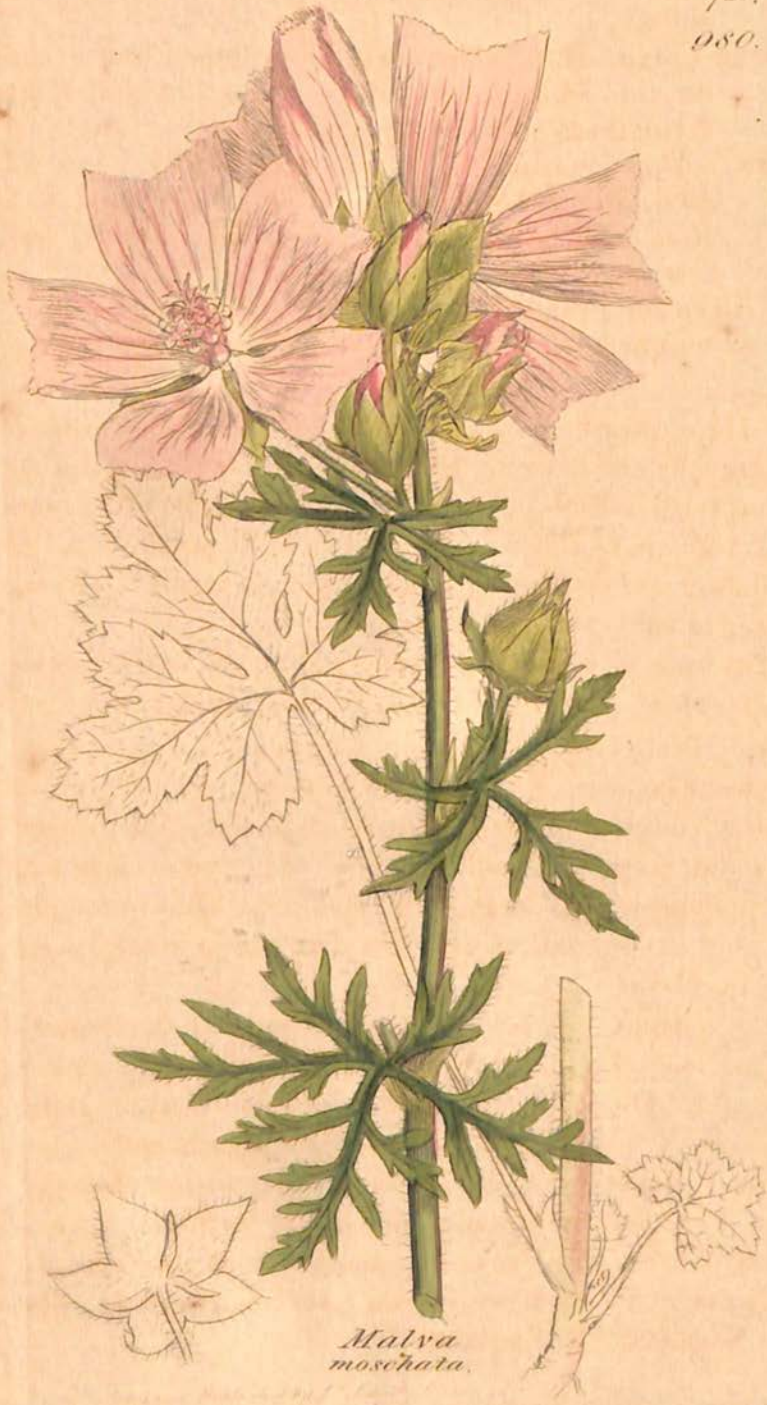
SPEC. CHAR. Stalks two-flowered. Petals cloven. Leaves in five deep laciniated divisions. Capsules hairy. Seeds dotted.

SYN. Geranium dissectum. *Linn. Sp. Pl.* 956. *Sm. Fl. Brit.* 737. *Huds.* 304. *With.* 603. *Hull.* 152. *Relh.* 263. *Sibth.* 214. *Abbot.* 150. *Curt. Lond. fasc.* 6. *t.* 45.

G. columbinum majus, dissectis foliis. *Raii Syn.* 359.

A NATIVE of waste ground, hedges and fallow fields, especially on a gravelly soil, flowering in May or June, and continuing for a considerable time.

Root annual. Stems branched, weak and straggling, clothed with short hairs that point downward. Leaves on footstalks, slightly hairy, deeply divided into five principal lobes, each of which is (except in the uppermost leaves) cut into three or more, jagged or entire, narrow lobes. Flower-stalks axillary, short. Calyx beaked, three-nerved. Petals pale crimson, hairy at the base, notched at the summit. Capsules scarcely keeled, brown, a little wrinkled, all over clothed with spreading hairs. Seeds elegantly dotted with minute hollows as in *G. rotundifolium* and *columbinum*, but it is distinguished from the former by its cloven petals and dissected leaves; from the latter by its short flower-stalks and hairy capsules; not to mention differences of habit.



Malva
moschata.

MALVA moschata.
Musk Mallow.

MONADELPHIA Polyandria.

GEN. CHAR. *Cal.* double; the outermost of 3 leaves. *Capsules* numerous, circularly arranged. *Seeds* solitary.

SPEC. CHAR. Radical leaves kidney-shaped, cut; those on the stem in five deep pinnatifid and finely divided segments. Calyx hairy.

SYN. Malva moschata. *Linn. Sp. Pl.* 971. *Sm. Fl. Brit.* 742. *Huds.* 308. *With.* 613. *Hull.* 155. *Relh.* 266. *Sibth.* 216. *Abbot.* 151. *Curt. Lond. fasc.* 4. *t.* 50.

Alcea tenuifolia crispa. *Dill. in Raii Syn.* 253.

A. vulgaris. *Raii Syn.* 252, the synonyms all wrong.

THE grassy borders of fields and little-frequented roads in gravelly countries are enlivened with the blossoms of the beautiful Musk Mallow during the hot months of Summer and Autumn, and at the same time its herbage will be found to diffuse a strong musky odour, which is hardly to be perceived in cold or damp weather.

The root is perennial, woody and tough. Stems about two feet high, but little branched, round, rough with rigid hairs. Radical leaves on long footstalks, kidney-shaped, 5-lobed, crenate, soon withering away; stem-leaves on shorter stalks, and divided to the base into 5 segments, which are deeply pinnatifid and cut. Flowers on long axillary simple stalks, large, rose coloured. Ends of the petals abruptly jagged. Calyx hairy, or almost bristly, paler than the leaves.

Ray mistook this for the *Alcea vulgaris* of J. Bauhin, (*Malva Alcea* Linn.), and inserted it by that name in his Synopsis. Dillenius in his edition mentions it by its right synonym, *A. tenuifolia crispa* of the same author, and copies Bauhin's doubts respecting its being really distinct from the other. Thus Hudson introduced both into his Flora, but erroneously; for the plants of Ray and Dillenius are both one, and the true *M. Alcea*, as distinct a species as can be, has never been found in England.

ASPERULA odorata.

Sweet Woodruff or Woodroof.

TETRANDRIA Monogynia.

GEN. CHAR. *Cor.* of one funnel-shaped petal, superior. *Seeds* 2, globose.

SPEC. CHAR. Leaves eight in a whorl, lanceolate. Tufts of flowers on stalks. Fruit bristly.

SYN. Asperula odorata. *Linn. Sp. Pl.* 150. *Sm. Fl. Brit.* 172. *Huds.* 66. *With* 185. *Hull.* 37. *Relh.* 64. *Sibth.* 57. *Abbot.* 32. *Curt. Lond. fasc.* 4. *t.* 15. *Dicks: H. Sicc. fasc.* 8. 7.
Asperula. *Raii Syn.* 224.

ALMOST every dry mountainous wood abounds with the Woodruff, nor is it unfrequent in the more level counties on a calcareous soil. It flowers in May.

Roots perennial, creeping among dead leaves and the more light and friable vegetable mould, and throwing up numerous, upright, simple, annual, smooth, angular, leafy stems, about a span high. Leaves 8 in a whorl, occasionally 7 or 9, bright-green, rough at the margin only. Panicles forked, dense, terminal, on longish stalks, generally 3 together. Flowers white, occasionally fragrant, particularly at night. Corolla shorter than in some other species, but sufficiently tubular to mark the genus. Fruit rough with ascending bristles.

We presume the English name Woodruff alludes to the whorled position of the leaves, like an old-fashioned ruff; and that Woodroof is a corruption of it.

The fresh herb has no smell; but as soon as it begins to dry it exhales a pleasant and lasting fragrance like that of new hay verging towards the flavour of bitter almonds, to the great surprise of those who gather it and keep it about them unawares.

The only British species of this genus, besides that here described, may be found in our 1st. vol., *t.* 33.

Polygonum Persicaria.

POLYGONUM Persicaria.

Spotted Persicaria.

OCTANDRIA Trigynia.

GEN. CHAR. *Cal.* coloured, in 5 segments, permanent. *Seed* solitary, superior, angular, invested with the calyx. *Stam.* and *Pist.* uncertain in number.

SPEC. CHAR Flowers with six stamina, and style divided half way down. Spikes ovato-oblong, erect. Common flower-stalks smooth. Stipulæ fringed.

SYN. Polygonum Persicaria. *Linn. Sp. Pl.* 518. *Sm. Fl. Brit.* 424. *Huds.* 169. *With.* 380. *Hull.* 85. *Relh.* 159. *Sibth.* 128. *Abbot.* 88. *Curt. Lond. fasc.* 1. *t.* 23.

Persicaria maculosa. *Raii Syn.* 145.

A COMMON weed in ditches, wet fields, and marshy places, flowering copiously in July and August.

Root annual, fibrous. Stem erect, though sometimes taking root from one or two of the lowermost joints, as in others of this genus, about two feet high, alternately branched, leafy, round, smooth, often reddish, generally swelled above each joint. Leaves almost sessile, lanceolate, entire, rough on the nerve and margin, for the most part marked with a black spot like a horse-shoe. Stipulæ tubular, membranous, fringed, surrounding the stem. Spikes terminal or axillary, on long smooth stalks, erect, cylindrical, obtuse, dense, composed of numerous rose-coloured or whitish flowers. Stamina 6, about as long as the calyx. Style cloven only half way down, sometimes 3-cleft. Seed obscurely triangular.

There is a variety with leaves hoary beneath, and another whose leaves have a silvery hue like the White Willow. These are noticed by Dillenius in Ray's *Synopsis* 145, *n.* 5 and 7, and are very common. The curious botanist is much indebted to the late ingenious Mr. Curtis for ascertaining the limits between this species and *P. lapathifolium* (his *pensylvanicum)* whose many varieties may always be known by their rough glandular flower-stalks, deeply divided style, and generally beardless stipulæ.

Achillea Ptarmica.

ACHILLEA Ptarmica.

Sneeze-wort Yarrow; or Goose-tongue.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Recept.* chaffy. *Down* none. *Cal.* ovate, imbricated, unequal. *Florets* of the *radius* 5 to 10, roundish, or inversely heart-shaped.

SPEC. CHAR. Leaves lanceolate, pointed, sharply serrated.

SYN. Achillea Ptarmica. *Linn. Sp. Pl.* 1266. *Sm. Fl. Brit.* 908. *Huds.* 375. *With.* 741. *Hull.* 189. *Relh.* 324. *Sibth.* 260. *Abbot.* 187. *Curt. Lond. fasc.* 5. *t.* 60.

Ptarmica. *Raii Syn.* 183.

THIS, though not a very general plant, is plentiful in some parts of England about wet hedges and the banks of rivers, flowering in July and August. It should seem by Mr. Curtis's account to be more common about London than it is in Norfolk. In gardens it often occurs with a double flower, that is, with the tubular florets of the disk almost entirely exchanged for radiant ones; and indeed it frequently happens that the radius is composed of more florets than the generic character allows. Their peculiar short roundish figure however is always characteristic, independent of their number.

Root creeping, perennial, very difficult to be eradicated where the soil is moist. Stems erect, about 2 feet high, angular, smooth, terminating in a corymbus of several flowers whose disk, as well as the radius, is white. Leaves simple, linear, smooth, very neatly and sharply serrated with little callous prickly teeth. Calyx rather hairy. Seeds compressed, dilated at the edge, but not crowned with any feather or wing. Scales of the receptacle as long as the florets.

The juice is pungent, provoking a flow of saliva if applied to the mouth or gums; and the dried herb occasions sneezing, probably by means of the minute prickles that border the leaves.

Achillea millefolium.

ACHILLEA Millefolium.
Common Yarrow; or Milfoil.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Recept.* chaffy. *Down* none. *Cal.* ovate, imbricated, unequal. *Florets* of the *radius* 5 to 10, roundish, or inversely heart-shaped.

SPEC. CHAR. Leaves doubly pinnatifid, hairy; their segments linear, toothed, pointed. Stems furrowed.

SYN. Achillea Millefolium. *Linn. Sp. Pl.* 1267. *Sm. Fl. Brit* 908. *Huds.* 374. *With.* 742. *Hull.* 189. *Relh.* 324. *Sibth.* 259. *Abbot.* 186. *Curt. Lond. fasc.* 6. *t* 61. *Mart. Fl. Rust. t.* 123. *Woodv. Med. Bot. t.* 64.

Millefolium vulgare. *Raii Syn.* 183.

COMMON every where in pastures, flowering from June to August, and the creeping perennial root is as difficult to be extirpated as that of *A. Ptarmica*. The young subterraneous shoots are white, smooth and tender, with a pungent, not unpleasant flavour. The whole herb above-ground is more or less pilose or hairy, and when bruised proves aromatic and somewhat astringent. It has been recommended for curing external wounds, and internal hæmorrhages, but is not used by regular practitioners in this country. Linnæus says, the miserable inhabitants of Dalekarlia, the mining province of Sweden, infuse it in their beer during the fermentation, to increase its intoxicating effects. Our public brewers are acquainted with too many foreign adulterations to need this, and the dishonest ones too often have recourse to them, notwithstanding the many wise prohibitions of our legislature; for their villainous gains enable them to defy the penalties.

The Yarrow cannot be confounded with any other British plant. Its compound leaves distinguish it from that last described, as well as its much smaller flowers, which, though generally white, often have a reddish or even purple radius, and become not unornamental.

85.

Alopecurus pratensis.

ALOPECURUS pratensis.

Meadow Fox-tail-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing a single floret. *Cor.* of 1 valve.

SPEC. CHAR. Stem erect, smooth. Spike somewhat lobed. Glumes of the calyx hairy, united at their base.

SYN. Alopecurus pratensis. *Linn. Sp. Pl.* 88. *Sm. Fl. Brit.* 72. *Huds.* 27. *With.* 119. *Hull.* 16. *Relh.* 24 *Sibth.* 34. *Abbot.* 12. *Curt. Lond. fasc.* 5. *t.* 5. *Mart. Fl. Rust. t.* 6.

Gramen Alopecuro simile glabrum, cum pilis longiusculis in spicâ. *Raii Syn.* 396.

A VERY common and extremely valuable grass in rather moist and fertile (but neither very wet nor very dry) pastures and meadows, flowering in May; for whose properties and advantages we must refer our readers to the *Flora Londinensis*, contenting ourselves with summing up the whole in the words of Prof. Martyn. "It undoubtedly "possesses the three great requisites of quantity, quality, "and earliness, in a superior degree to any other."

To distinguish this grass at first sight by its oblong, cylindrical, thick, somewhat silky and grayish spikes is not very difficult. It may with botanical certainty be known by the lanceolate (not abrupt) calyx, containing only one flower, whose corolla consists of *a single glume* or husk, the character of the genus. Its smooth stem, short stipulæ, and the silky down which clothes the glumes, added to its much thicker somewhat compound spike and perennial root, distinguish it from *A. agrestis*, the only species besides that has the glumes of the calyx united at their base.

I have sometimes seen a kind of *Musca* sticking in considerable numbers to the spikes of this grass, quite dead, but recent, and apparently poisoned, or killed by some sudden cause, without any derangement of its form or position. This was first I believe noticed by my intelligent entomological friend Mr. Marsham.

760
186.

Rothollia incurvata

ROTBOLLIA incurvata.

Sea Hard-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* fixed, mostly single-flowered, simple, or divided into 2 parts. *Flowers* ranged alternately on a jointed common stalk.

SPEC. CHAR. Spike round, awl-shaped. Calyx-glume awl-shaped, divided, close pressed to the stalk.

SYN. Rotbollia incurvata. *Linn. Suppl.* 114. *Sm. Fl. Brit.* 151. *With.* 169. *Hull.* 29. *Relh. Suppl.* 2. 8.
Aegilops incurvata. *Linn. Sp. Pl.* 1490. *Huds.* 441.
Gramen parvum marinum, spicâ loliaceâ. *Raii Syn.* 395.

FOUND on the sea coast and in salt marshes in several parts of the kingdom, flowering in August and September.

Root fibrous, annual. Stems numerous, procumbent in their lower part, branched, jointed and bent, very smooth, leafy. Leaves linear, pointed, recurved, rough on the edges and upper side; their sheaths a little inflated, striated, smooth, crowned by a short blunt stipula. Spikes terminal, solitary, erect, a little curved, cylindrical, slender, very smooth, consisting of many flowers ranged alternately along one common jointed stalk, which is sculptured with a little cavity on one side of each of its joints to receive each flower, and both before and after flowering the cloven valve of the calyx so exactly closes these cavities, as to form almost an uniform surface with the stalk. Calyx striated, beardless, smooth. Corolla of 2 white membranous husks. Germen invested with the usual cloven nectary of grasses. All the flowers are hermaphrodite and fertile. The joints of the flower-stalk, separating, fall to the ground and disperse the seed.

No agricultural use is attributed to this grass.

Lysimachia vulgaris.

LYSIMACHIA vulgaris.
Yellow Loosestrife.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* wheel-shaped. *Caps.* globose, pointed, with 10 valves.

SPEC. CHAR. Panicled. Clusters terminal. Leaves ovato-lanceolate, acute.

SYN. Lysimachia vulgaris. *Linn. Sp. Pl.* 209. *Sm. Fl. Brit.* 227. *Huds.* 86. *With.* 237. *Hull.* 49. *Relh.* 84. *Sibth.* 74. *Abbot.* 45. *Curt. Lond. fasc.* 5. *t.* 19.

L. lutea. *Raii Syn.* 282.

AN elegant ornament of watery shady places, and the reedy banks of rivers, where it intermingles with the Common Valerian, the *Eupatorium*, the *Lythrum Salicaria*, &c. but is much less common than any of them. It flowers in July, and, having a perennial creeping root, may be easily propagated in a garden, even where the soil is not very wet. In a moist one it would soon become a troublesome weed.

The stems rise to the height of 3 feet or more, and are straight, leafy, panicled at the top. The leaves, though generally opposite only, very often grow 3 or 4 in a whorl, almost sessile, of a broad lanceolate form, entire, veiny, frequently downy beneath. Clusters from the bosoms of the uppermost leaves, joining to form a panicle of large handsome yellow flowers. Each partial flower-stalk has an awl-shaped bractea at its base. The divisions of the calyx are pointed and fringed. Corolla spreading, divided almost to the base. Stamina smooth, united at the bottom, so as to be perfectly monadelphous. Seeds numerous and small, not always perfected.

It seems most probable that this herb received its Greek name in honour of Lysimachus, (as *Gentiana* and *Euphorbia* are ancient names of similar origin,) and that Loosestrife is merely a translation of it. The fable of the plant taming enraged animals, was probably, like many others, the invention of some person of more learning than wisdom.

Oxalis Acetosella.

OXALIS Acetosella.
Common Wood-Sorrel.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, connected by their claws. *Caps.* superior, of 5 cells, 5-sided, bursting at the angles. *Seeds* clothed with an elastic tunic.

SPEC. CHAR. Stalk single-flowered. Leaves ternate, inversely heart-shaped, hairy. Root of scaly joints.

SYN. Oxalis Acetosella. *Linn. Sp. Pl.* 620. *Sm Fl. Brit.* 491. *Huds.* 198. *With.* 430. *Hull.* 100. *Relh.* 176. *Sibth.* 144. *Abbot.* 100. *Curt. Lond. fasc.* 2. *t.* 31. *Woodv. Med. Bot. t.* 20.

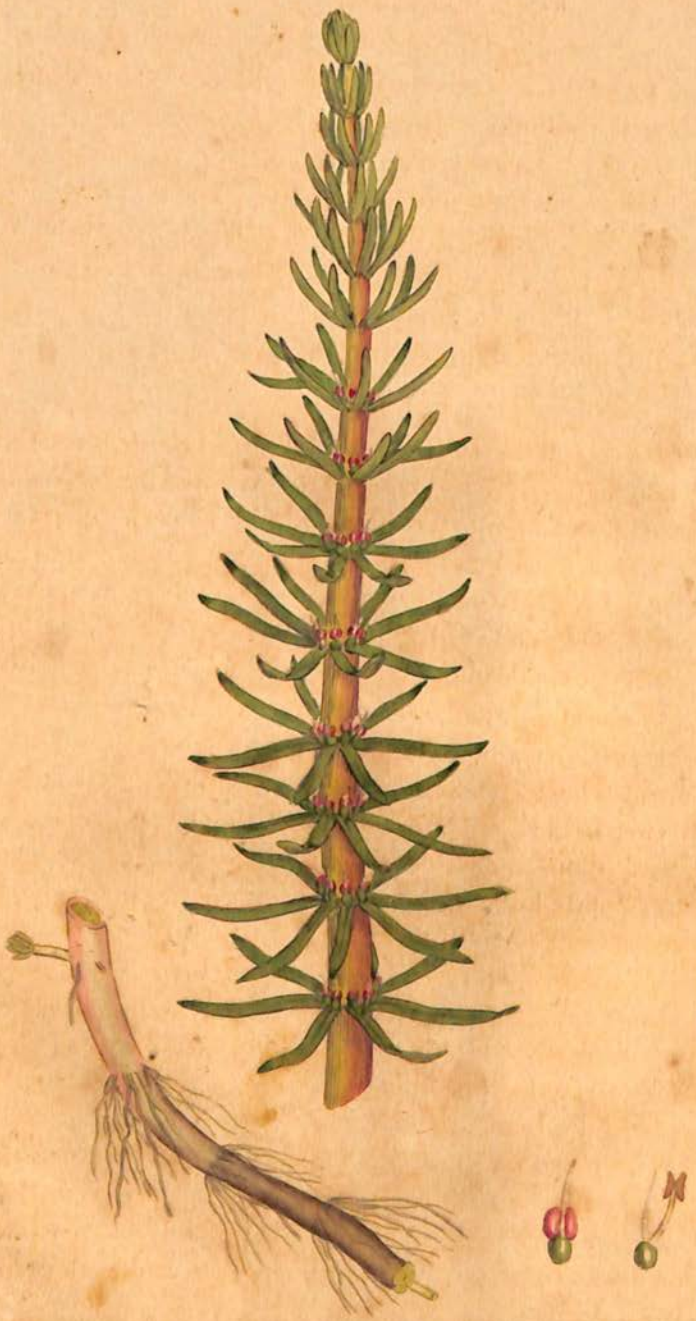
Oxys alba. *Raii Syn.* * 281.

GROVES and thickets in the spring abound with this pretty plant, whose delicate drooping blossoms do not indeed obtrude themselves upon the notice of every passenger, being generally shaded by bushes, or concealed by the herbage of other plants; but when observed they cannot fail to be admired, especially if contrasted with the bright verdure of their proper foliage. They are produced in April or May. Later in the summer the capsules are found darting forth their little shining seeds on the slightest touch, by means of the elastic *arillus* that contains them.

The root is perennial, and consists of numerous fleshy reddish scales. Stem none. Leaves on long stalks, three together, inversely heartshaped, drooping at night, very acid to the taste, often purplish beneath. Flowers on a simple hairy purplish stalk. Petals white, beautifully veined with purple, yellow at their base, and adhering together by a little glandular swelling on each side.

The leaves are beaten with sugar into an agreeably acid refreshing conserve, partaking of the flavour of green tea.

I cannot help suspecting this genus to be more allied to the *Rutaceæ* of M. de Jussieu than to his *Gerania*. Many of the former, lately discovered in New Holland, have acid purplish leaves. The *arillus* however is the most important point of agreement which first led me to this suspicion.



HIPPURIS vulgaris.

Mare's-tail.

MONANDRIA Monogynia.

GEN. CHAR. *Cal.* obsolete, undivided. *Cor.* none. *Stigma* simple. Seed 1, inferior.

SPEC. CHAR. Leaves whorled, linear.

SYN. Hippuris vulgaris. *Linn. Sp. Pl.* 6. *Sm. Fl. Brit.* 4. *Huds.* 2. *With.* 5. *Hull.* 2. *Relh.* 1. *Sibth.* 1. *Abbot.* 1. *Curt. Lond. fasc.* 4. *t.* 1. *Dicks. H. Sicc. fasc.* 2. 1.

Limnopeuce. *Raii Syn.* 136.

IN ditches, pools, and the borders of slow streams this plant may be seen in the months of May and June, rising to the height of 10 or 12 inches straight above the surface of the water, and flowering abundantly. Afterwards its whorled perennial roots, and leafy procumbent branches, only are to be found in the mud at the bottom. It is not indeed a very common plant, but grows in several parts of Norfolk and about London, seeming to prefer a gravelly soil.

Stem perfectly simple, round, smooth, reddish, set with numerous whorls of linear entire smooth leaves, about 8 or 10 in each whorl. Flowers sessile, one in the bosom of each leaf, small, and of the simplest structure; for they consist of only an oval germen, crowned with an almost imperceptible margin or calyx, without a corolla, and terminating in a simple, thread-shaped, pointed style, by whose side stands one simple stamen with a two-lobed anthera. When young this anthera is large and reddish, sitting close to the germen, as represented in our plate. The germen becomes a single naked seed.

The herb in its winter state, immersed in the water, with longer, thick-set, pellucid leaves, has been described by Dillenius in Ray's *Synopsis* as a remarkable variety; but it depends entirely on the time of the year, and is therefore not to be deemed a variety.

LIGUSTRUM vulgare.

Privet.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* 4-cleft. *Berry* superior, of 2 cells, with 2 *seeds* in each.

SPEC. CHAR. Leaves elliptic-lanceolatē, obtuse, with a little point.

SYN. Ligustrum vulgare. *Linn. Sp. Pl.* 10. *Sm. Fl. Brit.* 12. *Huds.* 3. *With.* 10. *Hull.* 4. *Relh.* 3. *Sibth.* 4. *Abbot.* 2. *Curt. Lond. fasc.* 5. *t.* 1. *Dicks. H. Sicc. fasc.* 13. 2.
Ligustrum. *Raii Syn.* 465.

THE Privet is often met with in hedges and thickets, particularly where the soil is gravelly and rather moist. It also grows in chalky situations; and is very frequently planted for hedges in gardens: for, being in mild winters almost evergreen, and at all times very hardy, and having some resemblance to the foliage of the Myrtle, it has been thought peculiarly eligible for such a purpose. It has also the advantage of bearing the smoke, even of London itself, better than most shrubs.

The whole plant is smooth, bitter, particularly the berries. Leaves opposite, nearly sessile, entire, various in breadth, more or less obtuse, but tipped with a minute point. Flowers produced early in June, white, with a strong unpleasant smell, and growing in dense terminal panicles. The corolla turns brown before it falls. In some others of the same natural order, the *Jasmineæ*, it assumes a purple hue. Berries purplish black, with 4 seeds enclosed in a mealy pulp.

VERONICA officinalis.

Common Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of 1 petal, 4-cleft, wheel-shaped; lower division narrowest. *Caps.* 2-celled.

SPEC. CHAR. Spikes lateral, on stalks. Leaves opposite, rough. Stem procumbent.

SYN. Veronica officinalis. *Linn. Sp. Pl.* 14. *Sm. Fl. Brit.* 16. *Huds.* 4. *With.* 13. *Hull.* 4. *Relh.* 4. *Sibth.* 4. *Abbot.* 2. *Curt. Lond. fasc.* 3. *t.* 1. *Woodv. Suppl. t.* 219. *Dicks. H. Sicc. fasc.* 13. 3. V. mas, supina et vulgatissima. *Raii Syn.* 281.

PLENTIFUL on dry sandy banks, or in woods and heathy places, flowering in May and June.

The roots are fibrous and perennial. Stems a little woody, prostrate, a foot or more in length, set with numerous, opposite, elliptical, blunt or pointed, serrated leaves, which are rough on both sides, like the stem, with short spreading hairs, that appear under a magnifier to be finely jointed. The spikes of flowers stand solitary, on long stalks, from the bosoms of the uppermost leaves, and rise above the termination of the stem; indeed they generally stand erect, making almost a right angle with it as it lies on the ground. Calyx hairy, in 4 almost equal, elliptical, but narrow, segments. Corolla blue, with darker veins. Capsule obcordate, a little hairy, consisting of 2 valves.

This *Veronica* was formerly much recommended to be used instead of the Chinese Tea, particularly in Sweden. Some have contended that it was the very same plant, brought with so much trouble and expense from China. Those who adulterate tea, however, know better than to mix any of this herb with it, whose appearance and flavour would soon betray it to our more refined tastes. It is astringent, with some degree of acrimony, and a rather unpleasant bitter.

VERONICA montana.

Mountain Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of 1 petal, 4-cleft, wheel-shaped; lower division narrowest. *Caps.* 2-celled.

SPEC. CHAR. Clusters lateral, elongated, slender, of few flowers. Leaves ovate, serrated, on foot-stalks. Stem hairy in every direction.

SYN. Veronica montana. *Linn. Sp. Pl.* 17. *Sm. Fl. Brit.* 21. *Huds.* 6. *With.* 16. *Hull.* 5. *Relh.* 7. *Sibth.* 6. *Abbot.* 4. *Curt. Lond. fasc.* 4. *t.* 2.

V. chamædryoides, foliis pediculis oblongis insidentibus. *Raii Syn.* 281.

MR. SOWERBY gathered this specimen in Charlton wood, where Sherard is first recorded to have found the V. *montana*, and where it still grows copiously. Nor is it very rare in other parts of England, in shady and rather moist woods, particularly on a chalky soil, flowering in May and June. The root is perennial.

Many botanists have thought this merely a variety of V. *Chamædrys*, see our *t.* 623; but such an idea can have arisen, as Mr. Curtis observes, only from a very superficial inquiry. In the first place, the hairiness of the stem being general, and not confined to two longitudinal lines, is its very sufficient distinction; to this may be added the stalked leaves, which are thinner and more shining than those of the *Chamædrys*; the corolla is much smaller and less beautiful; lastly, the capsule is thrice as large as in that species, more compressed and dilated, and formed as it were of two orbicular portions joined together, instead of being heart-shaped.

VERBENA officinalis.

Common Vervain.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cor.* funnel-shaped, nearly equal, curved. *Cal.* with 5 teeth, one of them shorter than the rest. *Stam.* 2 or 4. *Seeds* 2 or 4, enclosed in a thin tunic.

SPEC. CHAR. Stamina four. Spikes slender, panicled. Leaves deeply cut. Stem mostly solitary.

SYN. Verbena officinalis. *Linn. Sp. Pl.* 29. *Sm. Fl. Brit.* 609. *Huds.* 249. *With.* 520. *Hull.* 6. *Relh.* 221. *Sibth.* 181. *Abbot.* 127. *Curt. Lond. fasc.* 1. *t.* 41. *Woodv. Suppl. t.* 218.
V. vulgaris. *Raii Syn.* 236.

NOT unfrequent by road sides, in dry sunny pastures, and waste places about villages, flowering in July.

Root perennial, branching, woody. From each of its summits rises a solitary stem, curved at the base, about a foot high, square, leafy, rough with little prickles, panicled at the top with several opposite slender spikes of flowers. Leaves opposite, deeply cut and jagged. Flowers small, sessile, each accompanied by a little bractea. Calyx rough, tubular. Corolla of a very pale lilac hue, its tube enclosing the four short curved stamina. Seeds when young enfolded in one common skin or tunic, which is almost obliterated as they ripen, and then each appears marked with excavated dots at its upper part.

Although many species of *Verbena* have but 2 stamina, yet the majority having 4, 2 of which are longer than the others, the genus surely comes most naturally into the class *Didynamia*, among plants to which it is closely allied.

The root of this plant worn by a string round the neck is an old superstitious medicine for Scrophulous disorders, and its use has been revived by an empiric in our days, very properly exposed by Mr. Curtis in his *Flora Londinensis*.

Lamium album

LAMIUM album.

White Dead-nettle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Leaves heart-shaped, pointed, stalked. Flowers about twenty in a whorl.

SYN. Lamium album. *Linn. Sp. Pl.* 809. *Sm. Fl. Brit.* 626. *Huds.* 255. *With.* 526. *Hull.* 131. *Relh.* 226. *Sibth.* 183. *Abbot.* 128. *Curt. Lond. fasc.* 2. *t.* 45. *Mart. Fl. Rust. t.* 26. *Raii Syn.* 240.

COMMON every where in waste ground, by road sides, and the borders of fields, where it flowers abundantly in May and June, and again for the most part in autumn.

The root is creeping and perennial. Stems about 12 or 18 inches high, square, leafy. Leaves in pairs, all at nearly equal distances, on stalks, strongly serrated, veiny, a little hairy. Whorls in the bosoms of the leaves, each of about twenty flowers, which are large, hairy, cream-coloured and handsome, much frequented by bees, and often gathered by children for the sake of the honey, which may be sucked out of the tube. Stamina hairy, with black antheræ. The toothed margin of the tube of the corolla affords an excellent essential character for this genus.

The name Dead-nettle has been given from the resemblance of the leaves to the Stinging-nettle, which to a common observer is considerable, and has been universally noticed. The flowers are sometimes found tinged with a blush-colour in the neighbourhood of Norwich. The herb is useless in agriculture, and in general not eaten by domestic animals, except perhaps the hard-feeding laborious ass.

Lamium purpureum.

LAMIUM purpureum.

Red Dead-nettle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Leaves heart-shaped, blunt, stalked; the uppermost clustered together.

SYN. Lamium purpureum. *Linn. Sp. Pl.* 809. *Sm. Fl. Brit.* 627. *Huds.* 255. *With.* 527. *Hull.* 131. *Relh.* 226. *Sibth.* 183. *Abbot.* 128. *Curt. Lond. fasc.* 1. *t.* 42. *Mart. Fl. Rust. t.* 25. *Dicks. H. Sicc. fasc.* 16. 20.

L. rubrum. *Raii Syn.* 240.

THIS is no less common a weed in cultivated ground than the L. *album* in untilled places, and may be found in flower from March to June; very frequently throughout the autumn.

Root annual. Whole plant but half the size of the last described. Stems ascending; leafy and a little branched below, then naked, but thickly clothed with leaves in the upper part. Leaves broad-heartshaped, not pointed, unequally crenate. Flowers purple. Antheræ, or rather pollen, of the colour of red lead. Sometimes the corolla is white, and then the scarlet pollen is very conspicuous. The calyx is often purplish.

A variety, for so from long observation we deem it, with cut leaves, has been described as a species by Dr. Withering by the name of *dissectum*. There is also a more rare variety with entire leaves, resembling those of a *Parietaria*, which appears by a manuscript of the late learned Professor Martyn sen. to have been first found near Sudbury by a Mr. Joseph Andrews. This last is a weed in Chelsea garden.

Lamium amplexicaule

LAMIUM amplexicaule.

Henbit Dead-nettle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Floral leaves sessile, obtuse, embracing the stem.

SYN. Lamium amplexicaule. *Linn. Sp. Pl.* 809. *Sm. Fl. Brit.* 627. *Huds.* 255. *With.* 527. *Hull.* 132. *Relh.* 226. *Sibth.* 184. *Abbot.* 128. *Curt. Lond. fasc.* 2. *t.* 46.

L. folio caulem ambiente majus et minus. *Raii Syn.* 240.

THE least general of the three British species of *Lamium* is the *amplexicaule*. It is found only in dry sandy barren fields, or on walls, where it flowers from the middle or end of February till June. The early blossoms, though otherwise perfect, and fertile, have an abortive corolla, which never expands; but, being always closed, perhaps more effectually shelters the stamina from the moisture of the season. Its red velvet tip is a beautiful object, and marks the plant at a distance. The singularly rounded and lobed floral leaves, generally pale at their base, also characterize this species. The root is annual. Herb about the size of L. *rubrum*, with stems, as in that, but thinly clothed with leaves in the lower part. Pollen of a vermilion hue.

771

1880.

Jungermannia epiphylla.

JUNGERMANNIA epiphylla.

Broad-leaved Jungermannia.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male flowers sessile.

Female on a stalk rising from a sheath. *Caps.* with 4 valves. *Seeds* attached to elastic filaments.

SPEC. CHAR. Stem none. Frond bluntly lobed, bearing the sheaths on its upper surface, with a little leaf at the base of each.

SYN. Jungermannia epiphylla. *Linn. Sp. Pl.* 1602. *Fl. Suec.*403. *Huds.*517. *With.*867. *Hull.* 282. *Relh. Suppl.* 3. 11. *Abbot.* 253. *Lightf.* 788. *Dicks. H. Sicc. fasc.* 7. 22. *Hoffm. Germ. v.* 2. *t.* 4.

Lichenastrum capitulis rotundis e foliorum medio enascentibus. *Raii Syn.* 110. *Dill. Musc.* 508. *t.* 74. *f.* 41.

THIS Jungermannia may often be found on wet shady banks, and damp heaths, flowering in the beginning of winter, and elevating its ripe capsules in the spring.

The fronds are closely attached to the moist earth by innumerable soft fibrous perennial roots, except at their extremities, which are a little raised, dilated and bluntly lobed. They are of a reticulated texture, and deep dull green hue, smooth and sleek to the touch. The male flowers are described by Mr. Knapp (an accurate observer of this tribe) as appearing like dots on the older leaves. See Withering. Hedwig and Hoffman also represent them as warts discharging pollen. The female ones grow solitary from a cavity or groove in the disk of the frond, accompanied by a small incumbent leaf. The sheath is cut into 4 or 5 teeth at its margin, and the globular capsule remains latent within it during winter. In the spring the capsule rises up on a white tender stalk about 2 inches high, bursts into 4 parts, and scatters its seeds.

772.

2200

Collema sinuatum?

LICHEN sinuatus.

Sinuated Lichen.

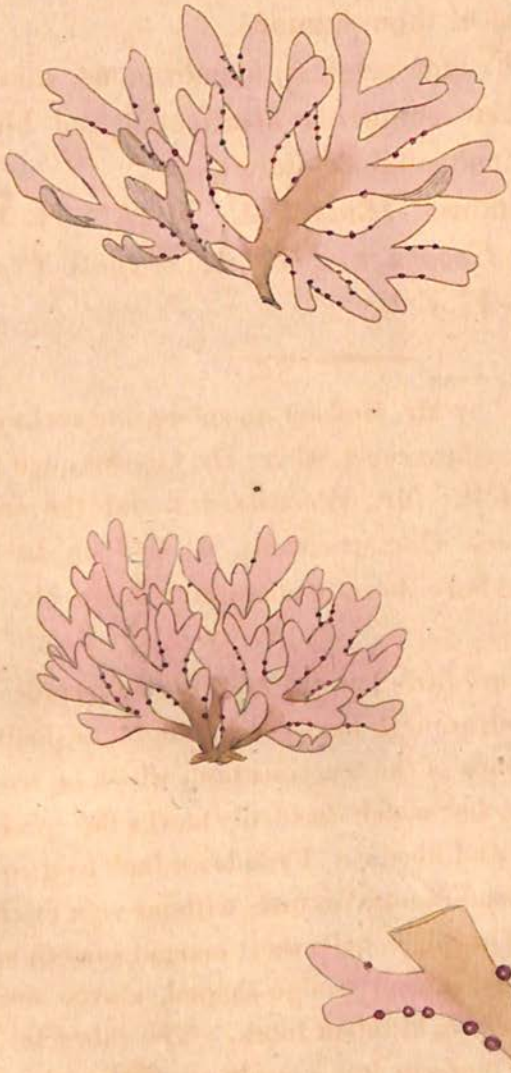
CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Imbricated, pellucid, somewhat gelatinous. Leaves roundish, sinuated, crenate, glaucous-green, smooth on both sides. Shields concave, brownish, with an elevated smooth border.

SYN. Lichen sinuatus. *Huds.* 535. *With. v.* 4. 75. *Hull.* 301.
Lichenoides tenue crispum, foliis parvis depressis. *Dill. Musc.* 145. *t.* 19. *f.* 33.

HEREFORDSHIRE, Devonshire and Wales are the only parts of this island in which Mr. Hudson's *Lichen sinuatus* is known to have been found, so that Mr. D. Turner's having discovered it on the ruinous walls of Burgh castle, near Yarmouth, is no small triumph for our Norfolk Flora. It occupies the interstices of rocks or stones in shady places, and being very small, is not easily detected, except in wet weather, when it assumes a bright sea-green tinge. It grows in little dense tufts, consisting of numerous spreading fronds, rounded, lobed and crenate, of a dull brown, verging towards a lead-colour, when dry, but of a glaucous grass-green when moistened, by which also they become somewhat gelatinous. The shields are scattered over the disk, as may be seen in the magnified portion of our figure, and are small, elevated, concave, brownish, especially when dry, with a smooth elevated border of the colour of the frond. Sometimes we have found the outside of the shields, though not their border, scaly with minute leaflets. This betrays some affinity to L. *Burgessii*, *t.* 300, to which L. *sinuatus* is naturally allied in many respects, though so widely different in size, and in being smooth on the under side of the fronds. The Lichen which I am quoted by Dr. Withering as having found at Dumbarton proves to be his *rupestris* rather than this plant, with which we were not then acquainted.



Rhodomenia bifida.

FUCUS bifidus.

Cloven Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Fronds veinless, membranous, dilated, cloven; their segments divaricated and blunt. Tubercles marginal, scattered.

SYN. Fucus bifidus. *Huds.* 581. *With. v.* 4. 103. *Hull.* 320. *Gooden. and Woodw. in Linn. Trans. v.* 3. 159. *t.* 17. *f.* 1.

FIRST observed by Mr. Hudson on submarine rocks and stones on the Hampshire coast, where Dr. Goodenough has likewise gathered it. Mr. Woodward found the same growing at Cromer. Our specimens, washed up on the Yarmouth beach, have been communicated by Mr. D. Turner.

This Fucus is very little known, and it is an instance of Mr. Hudson's penetration to have determined it as distinct without the assistance of the fructification, which he seems never to have seen, but which decidedly marks the species. The root is small and fibrous. Fronds an inch or two in height, of a thin membranous texture, without vein or rib; their colour a light purplish red; their margin smooth and entire; their form somewhat wedge-shaped, cloven once, twice, or more into two bluntish lobes. The tubercles of seeds are scattered more or less closely along the edge of the frond, and are globular, prominent, but very small, red, turning black as the seeds ripen.

2

Dictyota

dichotoma?

ULVA dichotoma.

Green dichotomous Laver.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Frond* membranous or gelatinous. *Seeds* solitary, scattered throughout its substance, under the cuticle.

SPEC. CHAR. Frond membranous, flat, dichotomous, reticulated, pale-green.

SYN. Ulva dichotoma. *Lightf.* 975. *t.* 34. *Huds.* 568. *With. v.* 4. 124. *Hull.* 312.

Fucus membranaceus dichotomus gramineus. *Raii Syn.* 45. Huds.

THE best account of the *Ulva* before us is given by Mr. Lightfoot, who guessed it to be U. *dichotoma* of the first edition of the *Flora Anglica*, and his conjecture is confirmed by Mr. Hudson in the second edition. The synonym of Ray stands on the authority of the writer last mentioned, who perhaps had seen named specimens in some old herbarium; otherwise there are but slender materials to support it.

Our specimens were gathered by Mr. Turner and Mr. Sowerby on the Cornish coast last summer. The plant is of a flat thin texture, curiously reticulated throughout its substance, somewhat like that kind of coralline called *Flustra*. The frond is repeatedly dichotomous, or forked, linear, entire, blunt and generally notched at the extremities. Fig. 1 shows its most general breadth; fig. 2 is a narrower variety, not much less common. The seeds are blackish, scattered through the substance of the frond. Mr. Sowerby has moreover observed a series of little bladders between these seeds and the margin of the leaf. What their use or nature is we presume not to determine.

Alisma natans.

ALISMA natans.
Floating Water-Plantain.

HEXANDRIA Polygynia.

GEN. CHAR. *Cal.* of 3 leaves. *Petals* 3. *Capsules* many, aggregate, generally single-seeded.

SPEC. CHAR Leaves elliptical, obtuse. Flower-stalks solitary. Capsules striated.

SYN. Alisma natans. *Linn. Sp. Pl.* 487. *Sm. Fl. Brit.* 402. *Huds.* 158. *With.* 362. *Hull.* 79.

RAY and Dillenius were unacquainted with this plant as a native of Britain. Mr. Brewer seems to have been its original discoverer in the great lake near Llanberris, where, as well as in other alpine lakes about Snowdon, it still grows. From thence our living specimens were brought to the garden of the Rt. hon. Charles Greville at Paddington, under whose care they flowered vigourously in May 1800. This gentleman has gathered the same plant in Keswick lake. We have also received wild dried specimens, gathered in Bala lake, Merionethshire, by the Rev. Mr. Wood of Leeds, with which Mr. Greville's cultivated ones perfectly agree.

The root is fibrous and perennial. Herb floating, consisting of many long round stems, of the size of a small packthread, producing from each joint two or more elliptical entire leaves on long footstalks, with one or two large delicate white flowers, each standing erect above the surface of the water on a long purplish flowerstalk. The petals are yellow at their base. Stamina six, short. Germens from 6 to 12, each becoming a ribbed or striated capsule. The abovementioned leaves float on the surface, to which purpose their long flexible stalks are well adapted; but there are also long linear-lanceolate radical leaves, always immersed in the water, and still distinct enough from the membranous stipulæ that acompany the footstalks of the others.

Cardamine
pratensis.

CARDAMINE pratensis.
Meadow Ladies'-Smock.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Pod* bursting elastically, the valves turning back, equal to the partition. *Stigma* entire. *Cal.* a little spreading. One *Gland* on each side, between the shorter stamina and the calyx.

SPEC. CHAR. Leaves pinnate; leaflets of the radical ones roundish and toothed; those of the stem lanceolate.

SYN. Cardamine pratensis. *Linn. Sp. Pl.* 915 *Sm. Fl. Brit.* 699. *Huds.* 294. *With.* 579. *Hull.* 149. *Relh.* 255. *Sibth.* 205. *Abbot.* 142. *Curt. Lond. fasc.* 3. *t.* 40. *Mart. Fl. Rust. t.* 95. *Woodv. Med. Bot. t.* 30.

Cardamine. *Raii Syn.* 299.

COMMON in meadows and moist pastures, which it agreeably enlivens in the spring with its white or pale purplish blossoms. The English name is supposed to have originated from the appearance of linen bleaching which a profusion of these flowers gives.

Root perenial, frequently toothed in some degree like that of the Coral-wort, *t.* 309. The colour and appearance of the flowers, the style rather more lengthened out than in other species of *Cardamine*, and, above all, a tendency of the leaves sometimes in wet shady places to bear buds or bulbs, all betray an affinity to the genus *Dentaria*. The stem is about a foot high, simple, leafy. Leaves all pinnate; the radical ones composed of roundish or heart-shaped, angular or toothed, leaflets; the rest of lanceolate and nearly entire ones; all almost smooth, especially the uppermost. The flowers when double are cultivated for their beauty in gardens. The wild ones have been recommended to be taken internally in spasmodic disorders, and even said to cure the Epilepsy, but experience has not confirmed their reputation. They were prescribed dried, which is generally not an advantageous state for plants of this natural order.

932.

Turritis glabra.

TURRITIS glabra.

Smooth Tower-Mustard.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Pod* very long, straight, somewhat angular. *Cal.* closed, erect. *Cor.* erect.

SPEC. CHAR. Radical leaves toothed, rough; the rest entire. embracing the stem, smooth.

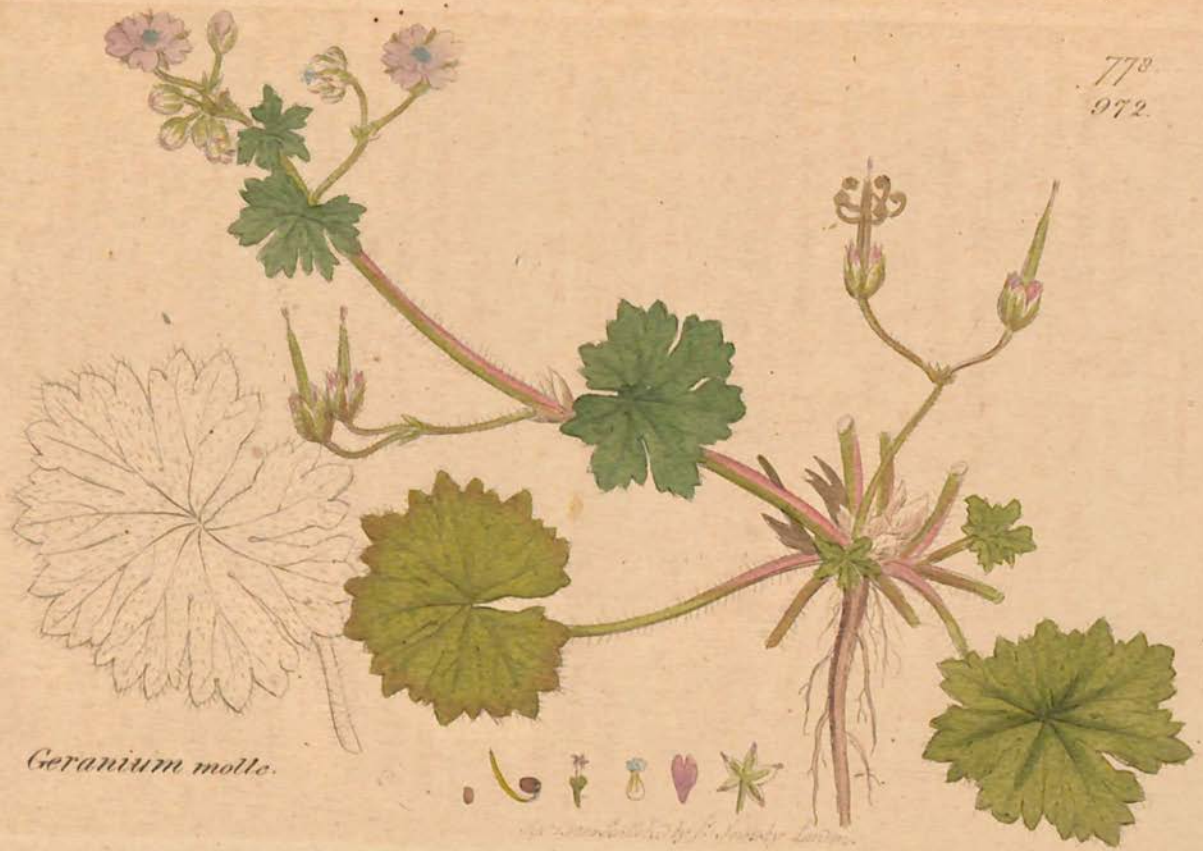
SYN. Turritis glabra. *Linn. Sp. Pl.* 930. *Sm. Fl. Brit.* 715. *Huds.* 291. *With.* 588. *Hull.* 148. *Sibth.* 204. *Curt. Lond. fasc.* 4. *t.* 47.

Turritis. *Raii Syn.* 293.

GATHERED by A. B. Lambert Esq. and Mr. Groult, near Richmond. It loves a dry gravelly soil, and occurs in various parts of Norfolk, flowering in May and June.

This is a much taller plant than the *T. hirsuta* figured in our 9th vol. *t.* 587. The root is annual. The straight wand-like stem is two feet or more in height, round, leafy, at first simple, but it produces a few lateral upright flowering branches after the main spike of seeds is full grown. Radical leaves lanceolate, broadly toothed and almost sinuated, rough on both sides with rigid, forked or simple, hairs: stem-leaves numerous, alternate, sessile, upright, arrow-shaped, entire, smooth, glaucous, (as is the whole herb more or less), clasping the stem at their base. Flowers numerous, small, in a corymbus which soon becomes a spike. Petals pale sulphur-coloured, entire. Pods long, linear, flat, bursting at their base, and containing a great number of seeds.

The genus of *Turritis*, as I have ventured to hint in the *Flora Britannica*, is scarcely to be distinguished from *Arabis* either by its natural habit or technical characters.



Geranium molle.

GERANIUM molle.
Dove's-foot Crane's-bill.

MONADELPHIA Decandria.

GEN. CHAR. *Cal.* 5-leaved. *Pet.* 5, regular. *Nectary* 5 glands. *Fruit* beaked, separating into 5 capsules, each tipped with a long recurved naked awn.

SPEC. CHAR. Stalks two flowered, alternate, opposite to the leaves. Leaves rounded, lobed, downy. Capsules puckered, smooth.

SYN. Geranium molle *Linn. Sp. Pl.* 955? *Sm. Fl. Brit.* 734. *Huds.* 303. *With.* 604. *Hull.* 153. *Relh.* 261. *Sibth.* 213. *Abbot.* 150. *Curt Lond. fasc.* 2. *t.* 50.

G. columbinum. *Raii Syn.* 369.

THIS is perhaps our most common *Geranium*, being found in cultivated as well as waste ground, in fields and by way sides, in all parts of Great Britain, though the *pusillum*, *t.* 385, is equally plentiful in many places, particularly where the soil is gravelly.

G. *molle* is annual, flowering from April to the end of summer. Stems mostly spreading or procumbent, reddish, clothed with soft but longish hairs. Herb covered with fine soft down, and sharing the peculiar odour of the *Geranium* tribe. Leaves roundish, lobed, and cut into broadish, not linear, segments. Flower-stalks solitary, opposite to the leaves, spreading very much. Flowers erect, much larger and redder than those of *pusillum*, with cloven petals. Stamina all perfect. Capsules transversely rugose or puckered, by which curious mark the species is with absolute certainty distinguished from *pusillum*, *pyrenaicum*, and *rotundifolium*, with all which it has often been confounded. The seeds are quite smooth, not dotted.

Linnæus certainly did not distinguish this from the *pyrenaicum* when he published his *Species Plantarum*, and we therefore quote that work in the present instance with doubt.

Carex vesicaria.

CAREX vesicaria.

Short-Spiked Bladder Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Female spikes cylindrical, shortish, nearly sessile. Sheaths none. Fruit inflated, beaked, cloven.

SYN. Carex vesicaria. *Linn. Sp. Pl.* 1388, *α and γ. Sm. Fl. Brit.* 1005. *Gooden. Tr. of Linn. Soc. v.* 2. 205. *With.* 110. *Hull.* 209. *Sibth.* 32. *Dicks. H. Sicc. fasc.* 14. 18.

C. inflata. *Huds.* 412. *Lightf.* 567.

Gramen cyperoides majus præcox, spicis turgidis teretibus flavescentibus. *Dill. in Raii Syn.* 420.

LIKE other large species of *Carex*, the *vesicaria* is found in wet meadows and marshy places, though not very frequently. It seems to be most common in the northern or mountainous countries, but may also be met with near the water-works at Pimlico, and elsewhere about the Thames. It flowers in May.

Root perennial and creeping. Stem upright, 2 feet high, with very sharp rough angles. Leaves erect, bright-green, ending in a taper point, rough on the edges. The bracteæ have moreover a rough keel, and little or no length of sheath at their base. Male spikes from 1 to 3, slender, acute, with linear-lanceolate, sharpish, brown, green-keeled scales; female about 3, generally almost sessile, thick and short (compared with other neighbouring species), with sharp scales. Stigmas 3. Fruit thickly ranged in several rows, spreading, longer than the scales, ovate, pointed, ribbed, inflated, smooth, yellowish and shining when ripe, cloven at the tip. The seed contained within it is small, sessile, short, triangular, crowned with the long permanent style shorn of its stigmas.

The short thick pale spikes, with their bladdery shining fruits, readily distinguish this species. The two varieties of Linnæus above quoted are only different stages of the fructification.

730.
1300.

Carex
ampullacea.

CAREX ampullacea.

Slender-beaked Bladder Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Stigmas 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Female spikes cylindrical, elongated, nearly sessile. Sheaths none. Fruit inflated, with a linear forked beak.

SYN. Carex ampullacea. *Gooden. Tr. of Linn. Soc. v.* 2. 207. *Sm. Fl. Brit.* 1006. *With.* 110. *Hull.* 209.

C. vesicaria. *Huds.* 413. *Lightf.* 566.

C. rostrata. *Sibth.* 32. *Abbot.* 206.

Gramen cyperoides polystachyon majus, spicis teretibus erectis. *Raii Syn.* 419.

THIS Carex is also most common in Scotland and the northern counties; in the south it more rarely occurs. It is plentiful at Seeting in Norfolk. We received our specimen by favour of Mr. J. Holme of Peter-house, Cambridge, from a watery gravel-pit near that town, where the plant was first remarked by the Rev. Mr. Newton, F. L. S. It is not a Linnæan species, and has been much mistaken by different botanists. Hudson quotes a synonym of Ray which belongs to our *vesicaria*, subjoining its proper denomination as a variety. Dr. Stokes first well illustrated it by the name of *rostrata*, in Dr. Withering's 2d edition. It flowers in May.

Root creeping, perennial. Stem with 3 blunt angles, which below the lowest bractea are smooth. Leaves narrow, rather glaucous. Male spikes 2 or 3, very slender, with bluntish scales; female 2 or 3, with generally sharper ones. These female spikes are longer and more slender than those of *C. vesicaria*, consisting of numerous spreading yellowish inflated roundish fruits, each terminating in a linear beak, nearly of its own length, which is cloven at the point. Seed small, crowned with the long style.

VERONICA Anagallis.

Water Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of 1 petal, 4-cleft, wheel-shaped; lower division narrowest. *Caps.* 2-celled.

SPEC. CHAR. Clusters lateral, opposite. Leaves lanceolate, serrated. Stem erect.

SYN. Veronica Anagallis. *Linn. Sp. Pl.* 16. *Sm. Fl. Brit.* 20. *Huds.* 5. *With.* 15. *Hull.* 5. *Relh.* 5. *Sibth.* 5. *Abbot.* 3. *Curt. Lond. fasc.* 5. *t.* 2. *Dicks. H. Sicc. fasc.* 13. 4.

V. aquatica longifolia media. *Raii Syn.* 280.

VERY common in ditches and muddy watery places, flowering in July, and, like all such aquatics as are tenacious of life or easily propagated, it is often found out of the water on the neighbouring banks, merely diminished in luxuriance.

The root is creeping and perennial. Whole herb much agreeing in habit with the Brooklime, V. *Becabunga*, *t.* 655, except that the stem is erect, and leaves lanceolate, acute, longer than in that species. The clusters are also longer, sharper, composed of more numerous and smaller flowers. Every part of the plant is smooth. Corolla of a pale dull blue, occasionally flesh-coloured, with darker veins. Capsules small, roundish, notched.

No notice has been taken of this plant in a medical or œconomical view. Its qualities are probably akin to those of Brooklime, to which it is nearly allied in botanical characters, though unquestionably a distinct species.

VERONICA scutellata.

Marsh Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior of 1 petal, 4-cleft, wheel-shaped; lower division narrowest. *Caps.* 2-celled.

SPEC. CHAR. Clusters lateral, alternate; partial flower-stalks divaricated. Leaves linear, slightly indented.

SYN. Veronica scutellata *Linn. Sp. Pl.* 16. *Sm. Fl. Brit.* 21. *Huds.* 5. *With.* 16. *Hull.* 5. *Relh.* 6. *Sibth.* 5. *Abbot.* 3. *Curt. Lond. fasc.* 5. *t.* 3.

V. aquatica angustifolia minor. *Raii Syn.* 280.

A MUCH less common plant than V. *Anagallis*, being to be met with only in spongy boggy spots, and chiefly where the soil is sandy, flowering in July or August.

It has a slender perennial root, throwing out creeping runners, and a few weak, spreading, simple stems, 6 or 8 inches long, clothed with opposite linear leaves, which are generally but slightly toothed, sometimes serrated, sometimes on the contrary (as Linnæus describes them) entire. The clusters grow alternately, and consist of a few pale flesh-coloured, purpled-veined, rather elegant flowers, whose slender stalks are bent backwards after the corolla fades, and then the ripening capsules, which are brown, and larger than in the V. *Anagallis*, become conspicuous, and have given rise to the name *scutellata*, resembling small shields. If the above description be attended to, these two species can never be confounded.

Although for the most part smooth, the plant now before us has been found in a downy state by the Rev. C. Sutton of Norwich; and indeed I have observed that variety to be common on St. Faith's Newton bogs.

VERONICA agrestis.

Procumbent Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of 1 petal, 4-cleft, wheel-shaped; lower division narrowest. *Caps.* 2-celled.

SPEC. CHAR. Flowers solitary. Leaves ovate, deeply serrated, shorter than the flower stalks. Stems procumbent. Seeds cupped.

SYN. Veronica agrestis. *Linn. Sp. Pl.* 18. *Sm. Fl. Brit.* 23. *Huds.* 7. *With.* 17. *Hull.* 5. *Relh.* 7. *Sibth.* 6. *Abbot* 4. *Curt. Lond. fasc.* 1. *t.* 1.

V. floribus singularibus, in oblongis pediculis, chamædryfolia. *Raii Syn.* 279.

NO weed can be more general than this in all cultivated fields and gardens, where, though an annual, it is always to be found in some stage or other, and in flower from the beginning of spring till the end of autumn.

The root is small and fibrous. Stems several, procumbent, long, leafy, round, hairy, not branched except at their base. Leaves scattered, on short foot-stalks, ovate, inclining to heart-shaped, deeply serrated, a little rough and hairy. Flowers on simple solitary axillary stalks, which exceed in length their corresponding leaves, and after flowering are curved downwards. Segments of the calyx ovato-lanceolate, ciliated, generally quite entire, now and then irregularly toothed. Corolla small, bright blue. Capsule of two round swelling lobes, rough. Seeds about 6 in each cell, externally rugged, cupped or hollowed out on the other side, in which hollow the little stalk is fixed that attaches them to the seed-vessel. Their whole structure is curious, and totally different from that of *V. arvensis*.

VERONICA hederifolia.

Ivy-leaved Speedwell.

DIANDRIA Monogynia,

GEN. CHAR. *Cor.* inferior, of 1 petal, 4-cleft, wheel-shaped; lower division narrowest. *Caps.* 2-celled.

SPEC. CHAR. Flowers solitary. Leaves heart-shaped, flat, five-lobed. Segments of the calyx heart-shaped. Seeds cupped.

SYN. Veronica hederifolia. *Linn. Sp. Pl.* 19. *Sm. Fl. Brit.* 24. *Huds.* 7. *With.* 17. *Hull.* 5. *Relh.* 8. *Sibth.* 7. *Abbot.* 5. *Curt. Lond. fasc.* 2. *t.* 1.

V. flosculis singularibus, Hederulæ folio, Morsus gallinæ minor dicta. *Raii Syn.* 280.

WHAT has been said in the last page respecting the place of growth and the duration of *V. agrestis* is exactly applicable to the present plant, its pretty constant companion. Both also agree in the hollow or cup-like form of their seeds, in which they totally differ from other British *Veronicæ*.

Root small, fibrous. Stems prostrate, unbranched. Leaves on foot-stalks various in length, roundish, five-lobed when perfect, the central lobe being much the largest. Flower-stalks spreading, longer than the leaves. Calyx-lobes heart-shaped, acute, fringed. Corolla pale blue. Capsule swelling, with 2 large rugged concave seeds in each cell.

The leaves are sometimes more deeply cut than in our specimen, in which state young botanists often take this plant for *V. triphyllos*, see our 1st vol. *t.* 26. If the seeds be attended to no mistake can happen.

Splachnum sphæricum.

SPLACHNUM sphæricum.

Green globular Splachnum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* cylindrical, placed on a fleshy *receptacle*. *Fringe* of a simple row of teeth.

SPEC. CHAR. Receptacle nearly globular, green. Leaves ovate, pointed, entire.

SYN. Splachnum sphæricum. *Swartz. in Linn. fil. Meth. Musc.* 33. *t.* 1. *f.* 1. *Dicks. Crypt. fasc.* 1. 3. *With.* 791. *Hull.* 245.

AMID all the doubts and difficulties that modern botanists have met with in fixing the genera of mosses, the *Splachnum* remains unshaken. Its essential character depends on the succulent receptacle, always thicker and more turgid than the cylindrical capsule which it sustains. The male flowers form a little terminal star on a separate root from the female.

This rare species was first observed in Britain by my worthy friend and fellow-student Dr. Francis Buchannan, now resident in Bengal, who gathered it on a mountain near Stirling in 1782. Mr. Sowerby received the present specimens from North Wales, by favour of J. W. Griffith Esq. bearing its ripe fruit in the month of July.

It forms green tufts, each plant being simple, with a fibrous, seemingly annual, root, and a short, leafy, upright stem. Leaves alternate, broad, ovate, pointed, entire, undulated, of a fine reticulated structure, with one simple rib. Fruit-stalk solitary, terminal, erect, a little waved, pale reddish yellow, green at the summit, terminated by a dark-green, almost globular receptacle, on which stands the small cylindrical brown capsule, at first covered with a blunt hemisphærical lid, which soon falls off, and the orifice appears fringed with a simple row of spreading teeth. The columella projects a little, with a blunt red head.

Splachnum tastigiatum

SPLACHNUM mnioides.

Brown tapering Splachnum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* cylindrical, placed on a fleshy *receptacle*. *Fringe* of a simple row of teeth.

SPEC. CHAR. Receptacle oblong, brown. Leaves elliptic-lanceolate, entire, bristle-pointed.

SYN. Splachnum mnioides. *Swartz. in Linn. fil. Meth. Musc.* 26. *Dicks. Crypt. fasc.* 1. 3. *With.* 793. *Hull.* 246.

Bryum ampullaceum, foliis et ampullis angustioribus. *Dill. Musc.* 345. *t.* 44. *f.* 5.

SPECIMENS of this moss were communicated to us from the mountains of Scotland by Mr. John Mackay in the month of July. It grows in dense tufts, consisting of longish, simple or divided, leafy stems. The leaves are closely imbricated, lanceolate, approaching to an elliptical form (especially the lower ones,) entire, tipped with a long bristly point, and having a not very conspicuous rib. Fruit-stalks reddish-yellow, darkest at the summit. Receptacle a little inclined, oblong, or slender pear-shaped, brown, bearing a brown cylindrical capsule as in other species of this curious genus. The lid is flattish, with a blunt point; the teeth about 12.

We have ascertained the above synonyms by actual comparison of specimens with the Linnæan and Dillenian collections, so that the doubts suggested by Dr. Withering are removed. The *Phascum pedunculatum* of Linnæus, and Hudson's first edition, quoted by Dr. Swartz, is however a different plant, figured by Dillenius, *Hist. Musc. t.* 44. *f.* 4. and *Raii Syn. t.* 3. *f.* 2, and named by Mr. Dickson, in his second *fasciculus, Splachnum ovatum*, having been mistaken by the author of the *Flora Anglica* in his second edition for *S. vasculosum* of Linnæus.

GALEOBDOLON luteum.

Yellow Archangel.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, unequal, awned. Upper lip of the *corolla* entire, vaulted; lower in 3 acute segments.

SPEC. CHAR.....

SYN. Galeobdolon luteum. *Huds.* 258. *Sm. Fl. Brit.* 631. *With.* 530. *Hull.* 131. *Abbot.* 129.
G. Galeopsis. *Curt. Lond. fasc.* 4. *t.* 40. *Relh.* 228. *Sibth.* 185.
Galeopsis Galeobdolon. *Linn. Sp. Pl.* 810.
Lamium luetum. *Raii Syn.* 240.

So obvious a resemblance to the genus *Lamium* runs through almost every part of this plant, that we cannot blame the old authors for naming it *Lamium luteum*. It is perhaps to be lamented that the strict, though sound, laws of systematic botany oblige us to make it a separate genus, for neither its natural habit nor essential characters will allow us to follow Linnæus in referring it to *Galeopsis*. The pointed, uniform, and almost equal, segments of the lower lip, and the perfectly entire margin of the upper, sufficiently discriminate it as a genus, though we know of no other species than that here described, which is not unfrequent in moist shady groves, flowering in May.

Root perennial, a little creeping. Stems upright, simple, about a foot high, square, as in all this order, clothed with scattered deflexed hairs. Leaves ovate, various in breadth, bright-green, deeply and unequally serrated, a little hairy. Flowers whorled, large and handsome, yellow, the under lip elegantly spotted and streaked with red. Calyx-teeth spreading, each tipped with a small bristle. Bracteæ linear.

In sensible qualities this herb agrees with most species of *Lamium*. No particular virtues are attributed to it, nor does its place of growth render it troublesome to the husbandman.

LYCHNIS Viscaria.

Red German Catchfly.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* of 1 leaf, oblong. *Petals* 5, with claws; their limb mostly divided. *Caps.* superior, opening with 5 teeth, of 1 or 5 cells.

SPEC. CHAR. Petals undivided. Fruit of 5 cells.

SYN. Lychnis Viscaria. *Linn. Sp. Pl.* 625. *Sm. Fl. Brit.* 494. *Huds.* 199. *With.* 433. *Hull.* 100. *Lightf.* 239.

L. Sylvestris vicosa rubra angustifolia. *Raii Syn.* 340.

A VERY rare plant wild, though common with double flowers in gardens. It still grows in several rocky spots about Edinburgh, as mentioned by Ray, and from thence Mr. Mackay sent us fresh specimens; the same accurate observer has found it at Craig Hall, near Blair gowrie, Angus-shire. It is perennial, and blooms early in the summer, when its flowers are a great ornament to its native crags, their rose-coloured petals being prettily contrasted with the purplish calyx and dark-brown stem.

The roots are woody and perennial, strongly fixed in the clefts of the rocks. Stems straight, about a foot high, simple, angular, leafy, dark-brown and clammy under each joint, by which insects are plentifully caught, as in several other plants of the pink or campion tribe, for what purpose no one has yet ascertained; probably their decaying bodies form an air which is salutary to vegetable life. Leaves lanceolate, entire, pointed, dark-green, smooth. Flowers in a dense forked panicle or *thyrsus*. Calyx membranous, coloured, smooth, or sometimes a little hairy. Petals slightly emarginate, with a cloven crown at the base of their limb. Capsule ovate, scarcely half so long as the calyx, divided internally into five cells, containing many rough seeds.

CERASTIUM vulgatum.

Broad-leaved Mouse-ear Chickweed.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved *Petals* cloven. *Caps.* superior, of 1 cell, bursting at the top, with 10 teeth.

SPEC. CHAR. Hairy, viscid, forming tufts. Leaves ovate. Petals equal to the calyx. Flowers longer than their stalks.

SYN. Cerastium vulgatum. *Linn. Syst. Nat. ed.* 10. *v.* 2. 1039. *Sp. Pl.* 627. *Sm. Fl. Brit.* 496. *Lightf.* 240.

C. viscosum. *Huds.* 200. *With.* 433. *Hull.* 101. *Relh.* 178. *Sibth.* 147. *Abbot.* 101. *Curt Lond. fasc.* 2. *t.* 35.

Alsine hirsuta Myosotis latifolia præcocior. *Raii Syn.* 348.

Myosotis arvensis hirsuta parvo flore. *Vaill. Par. t.* 30. *f.* 3.

NO plants have been more generally mistaken for each other than the common *Cerastium vulgatum* and *C. viscosum.* The cause of the error is Linnæus, who misquoted Vaillant's admirable figures; and the indolent practice of turning to plates and synonyms, instead of attending to his definitions and solid descriptions, has misled many of his compiling disciples. The plant now before us was not noticed in the first ed. of *Sp. Pl.* but occurs first in the tenth ed. of *Systema Naturæ*, and the original specimen marked A, refering to that edition, still preserved in the Linnæan herbarium, precludes all possibility of error. Mr. Lightfoot alone, of all our writers, knew these species rightly.

C. vulgatum abounds in waste and cultivated ground, on walls, banks, and dry sandy places, flowering in April and May. Its light-green hue, yellowish in decay, its broad ovate leaves and smaller flowers, distinguish it from the *viscosum.* The stems are also more erect. The whole herb is hairy and more or less viscid. Petals white, emarginate, scarcely longer than the calyx. Stamina all fertile. Capsule cylindrical, a little curved. Seeds tawny, streaked, and roughish. The root is constantly annual only.

CERASTIUM viscosum.

Broad-leaved Mouse-ear Chickweed.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved *Petals* cloven. *Caps.* superior, of 1 cell, bursting at the top, with 10 teeth.

SPEC. CHAR. Hairy, viscid, spreading. Leaves lanceolate-oblong.

SYN. Cerastium vicosum. *Linn. Sp. Pl.* 627. *Sm. Fl. Brit.* 497. *Lightf.* 240.

C. vulgatum. *Huds.* 200. *With.* 433. *Hull.* 101. *Relh.* 178. *Sibth.* 146. *Curt Lond. fasc.* 2. *t.* 34.

Alsine hirsuta Myosotis *Raii Syn.* 349.

Myosotis hirsuta altera viscosa. *Vaill. Par. t.* 30. *f.* 1.

THIS is equally common with the *C. vulgatum*, growing in pastures, waste places, on walls, and even in moist meadows, nor is it at all more viscid than that, so that Linnæus has not been happy in the specific names of the two species. We must however defend Vaillant, as well as Linnæus, so far as to say in opposition to Mr. Curtis, copied by Dr. Sibthorp, that the plant now under consideration is always viscid, though less so at an advanced age, and in cold weather.

It flowers from May to September, and differs from the preceding in being perennial, as well as in its spreading or procumbent stems, darker green hue, and narrower leaves. The parts of fructification are also larger; petals longer and more conspicuous. Flower-stalks generally longer. Seeds rugged. The stamina are ten, all fertile as in the other, by which both are known from *C. semidecandrum*, *pentandrum* and *tetrandrum*. The last mentioned is described in the present work as a *Sagina*, *t.* 166, but Mr. Curtis's just remarks (in spite of the erroneous criticisms on my botanical phraseology with which they are mixed) have led me to make it a *Cerastium* in the *Fl. Brit.*

SCHŒNUS compressus.

Compressed Bog-rush.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, clustered; the outer ones barren. *Cor.* none. *Seed* 1, roundish, among the glumes.

SPEC. CHAR. Stem roundish, naked. Spike two-ranked, shorter than the bractea, which is simple. Spikelets many-flowered. Leaves flat.

SYN. Schœnus compressus. *Linn. Sp. Pl.* 65. *Sm. Fl. Brit.* 44. *Huds.* 15. *With.* 80. *Hull.* 12. *Relh.* 17. *Dicks. H. Sicc. fasc.* 3. 2.

Gramen cyperoides, spicâ simplici compressâ distichâ· *Raii Syn.* 425.

A NATIVE of turfy bogs, and spongy meadows, which should seem to be less rare than it has generally been supposed; in Norfolk at least it is not at all uncommon, flowering in July, nor are its bright-chesnut polished spikes easily overlooked, if the surrounding herbage does not conceal them from our view.

The root is a little creeping. Stems simple, scarcely a foot high, upright, roundish, smooth, naked except at the very base. Leaves 3 or 4 investing the bottom of the stem, sheathing, alternate, flat, with a projecting nerve, of a grass green, smooth except at the margin. Spike solitary, terminal, composed of several spikelets alternately disposed in 2 ranks, the lower ones a little remote, and the lowest subtended by a bractea, which commonly exceeds the general spike in length, and is triangular and rough at the end. The outer glumes are barren; each of the rest serves as a calyx to each floret. Stamina 3. Style simple, with a downy cloven stigma. Seed invested at the base with several rough bristles, showing a near approach to the genus *Eriophorum*.

This is certainly what Linnæus originally meant for his *Carex uliginosa*, he having neglected to examine the fructification, trusting probably to the resemblance of the plant to *C. arenaria*, &c.

POA decumbens.

Decumbent Meadow-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing many florets. *Spikelet* rounded at the base. *Cor.* of 2 ovate, pointed, beardless valves.

SPEC. CHAR. Panicle generally simple, condensed, erect. Spikelets ovate, four-flowered, the length of the calyx. Stipulæ formed of little hairs.

SYN. Poa decumbens. *With.* 147. *Sm. Fl Brit.* 107. *Hull.* 23.

Festuca decumbens. *Linn. Sp. Pl.* 110. *Huds.* 47. *Relh.* 43. *Sibth.* 46. *Abbot.* 22. *Dicks. H. Sicc. fasc.* 11. 3.

Gramen avenaceum parvum procumbens, paniculis non aristatis. *Raii Syn.* 408.

SPONGY bogs on barren sandy or mountainous ground produce this grass frequently. It flowers in July and is perennial.

The whole plant is remarkably harsh and rigid, lying close to the ground, except when in flower. The roots creep, though to no great extent. The stem is about a foot long, jointed and bent, smooth, leafy. Leaves linear, straight, horizontal, rather glaucous. Their long sheaths closely invest the stem and are hairy (particularly upwards) and striated. The stipula which crowns their summit within-inside is formed of numerous dense hairs. The panicle is zigzag, and consists of but few flowers. Each spikelet is ovate, acute, tumid (especially as it ripens its seeds), smooth, generally purplish. The calyx glumes are about as long as the spikelet, nearly equal, ovate, acute, slightly ribbed, with a rough keel. The florets are more elliptical, blunter, and notched, very smooth, nerved, hairy at their base; their outer glume has in its notch a short intermediate flat tooth, totally different however from the awn of a *Festuca*, so that we readily assent to Dr. Withering's alteration in making this grass a *Poa*. In habit, and structure of some parts, it is, as Linnæus observes, more allied to *Melica*.

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